

IBM WebSphere Business Modeler: Process Mapping and Analysis

(Course code VB184)
(Classroom Course code WB184)

Student Exercises

ERC 1.0

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WebSphere Education

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Exercises description

Refer to exercise objectives and description on each lab exercise.

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Exercise 1. There is no exercise for this unit

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Exercise 2. WebSphere Business Modeler installation

What this exercise is about

This lab walks through the installation of WebSphere Business Modeler V602 Advanced Edition.

What you should be able to do

At the end of the lab, you should be able to:

- Install Modeler

Requirements

- Software prerequisites for the stand-alone version:
  - Windows 2000 with service pack 4 or later
  - Windows XP with service pack 2 or later
- Processor: Intel Pentium III 500 MHz or higher
- Memory: 768 MB RAM minimum (1 GB RAM recommended)
- Disk space: 600 MB required for installation and additional user files
- Display resolution: 1024 x 768 minimum

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Exercise instructions

Part 1: Installing WebSphere Business Modeler V6.0.2 Advanced Edition



Note

If you have already installed WebSphere Business Modeler v6.0.2, you should skip this exercise.

If you have installed WebSphere Business Modeler v6.0.1 or an earlier version, including WebSphere Integration Workbench v4.2.4, you should follow the instructions in this exercise to upgrade to v6.0.2.

__ 1. Locate the `Modeler_6.0.2.000_Advanced.exe` file in the `C:/VB184/Software` directory provided.

__ 2. Double-click the file to expand it into folder `C:\IBM\Modeler v602 Unzip`

__ 3. Click **Start -> Run**.

__ 4. In the **Run** window dialog, click the **Browse** button to locate the `setup.exe` file in the `C:\IBM\Modeler v602 unzip` folder.

__ 5. Select `setup.exe` and click **Open**.

__ 6. Click **OK** from the **Run** window dialog.

The IBM WebSphere Business Modeler Advanced Edition Version 6.0.2 – Launchpad is displayed.

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__ 7. Click **Install IBM WebSphere Business Modeler Advanced Edition Version 6.0.2** from the launchpad screen.


WebSphere Business Modeler Advanced
Version 6.0.2
IBM
Read the Getting Started information
Use the Installation and Migration Guide, First Steps Guide and Release Notes to help you start using the product quickly.
Install IBM WebSphere Business Modeler Advanced Version 6.0.2
Install the product on your system.
Exit
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__ 8. On the WebSphere Business Modeler setup screen, click **Next**.

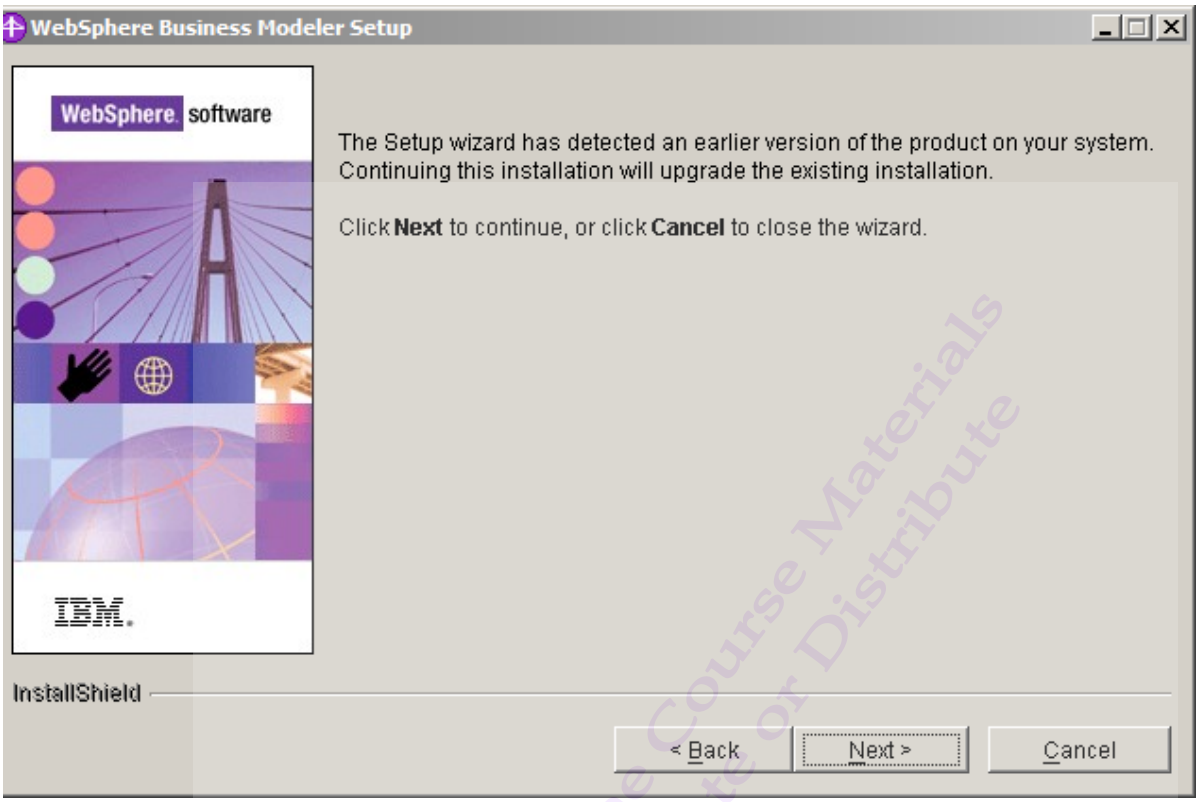
__ 9. On the software license agreement screen, select **I accept the terms in the license agreement**.

__ 10. Click **Next**.

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__ 11. If WebSphere Business Modeler V6.0.1 was previously installed in your machine, the Setup wizard will notify you that it has been detected. Click **Next** to continue the installation.

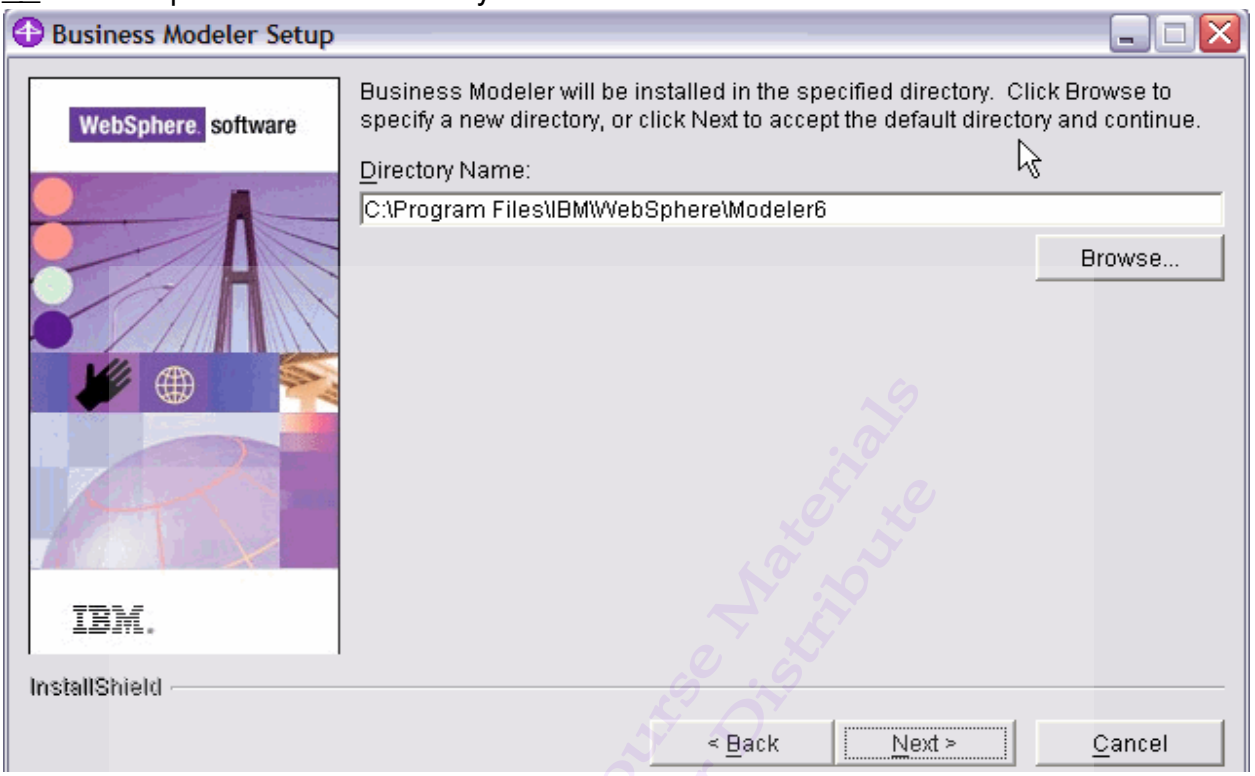

WebSphere Business Modeler Setup
WebSphere. software
The Setup wizard has detected an earlier version of the product on your system.
Continuing this installation will upgrade the existing installation.
Click Next to continue, or click Cancel to close the wizard.
IBM.
InstallShield
< Back
Next >
Cancel

__ 12. If you are upgrading from v6.0.1, click **Next** on the **Summary** screen.

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__ 13. Accept the default Directory Name and click **Next**.


Business Modeler Setup
WebSphere software
IBM.
Business Modeler will be installed in the specified directory. Click Browse to specify a new directory, or click Next to accept the default directory and continue.
Directory Name:
C:\Program Files\IBM\WebSphere\Modeler6
Browse...
InstallShield
< Back
Next >
Cancel

__ 14. Click **Next** to accept English as the default language.

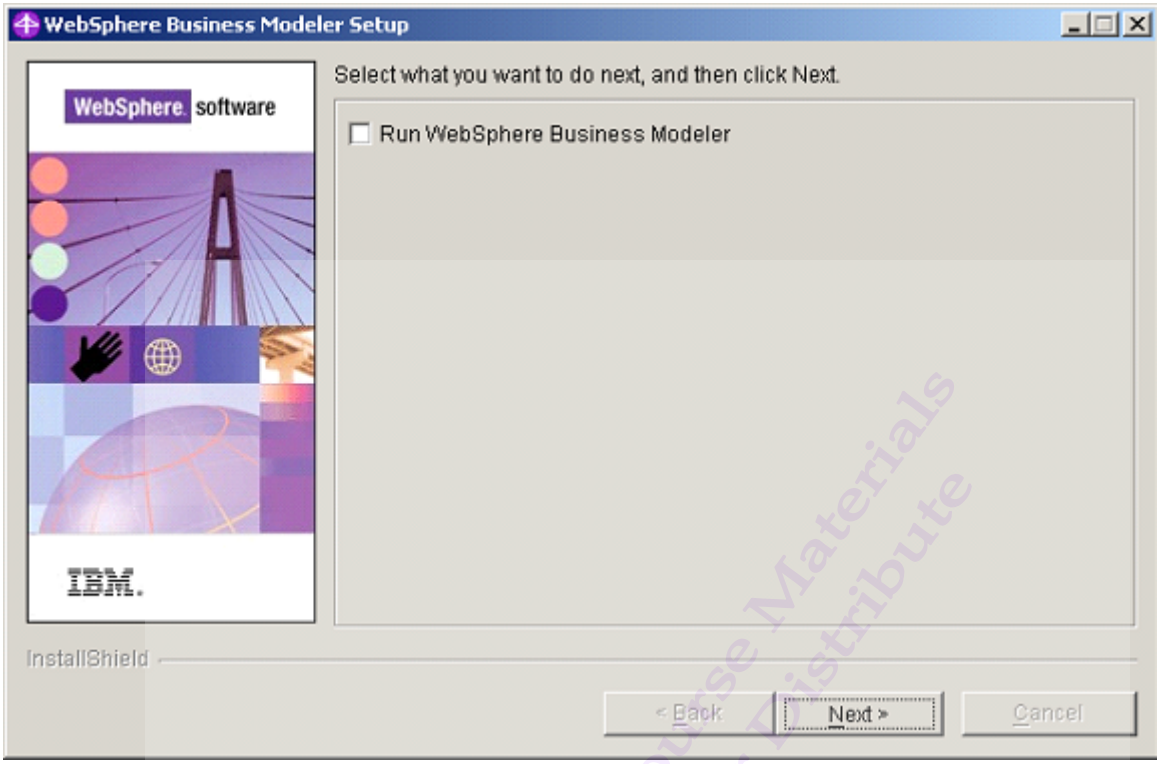
__ 15. On the summary screen, click **Next** to continue the installation process.

This step takes several minutes to complete.

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__ 16. *Do not* check the **Run WebSphere Business Modeler** box. Click **Next**.



__ 17. Click **Finish** when the installation is completed.

__ 18. Once WebSphere Business Modeler has been installed, the following PDF documents are available in directory `C:\Program Files\IBM\WebSphere\Modeler6\Doc\en`:

- Installation Guide (`installmigrate.pdf`): describes how to install the product and how to migrate from previous versions
- Getting Started Guide (`firststeps.pdf`): describes how to quickly set up a project and begin modeling a business process
- Release Notes (`releasenotes.pdf`)

END OF EXERCISE

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Exercise 3. Create a simple process

What this exercise is about

This lab provides steps in importing a sample project and creating a simple process using WebSphere Business Modeler.

What you should be able to do

During the lab, you will:

- Create the “Fill Staff Request” process
- Import a sample project
- Explore and navigate the Modeler

Requirements

WebSphere Business Modeler should be installed.

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Exercise instructions

During the lab exercise, you will see the following note symbol:

Note

This note area will provide you with important supplement information, further explanation, or an alternate way to complete a specific step.

Business scenario: The Big Apple Consulting is an IT consulting service company. Big Apple Consulting assigns their consultants or technicians to help the customers on engagements. You will create a project in Modeler called Staffing Project, and you will also create a process model called Fill Staff Request. This process will document as how project manager assigns the consultants to different engagements. Based on a simple decision, the project manager will determine where to locate resources to fill the staff request. If consultants are available to work, then the project manager can assign them. However, if there is none available, the project manager will have to contact a business partner to locate external resources to fill the request.

Part 1: Starting Modeler

Note

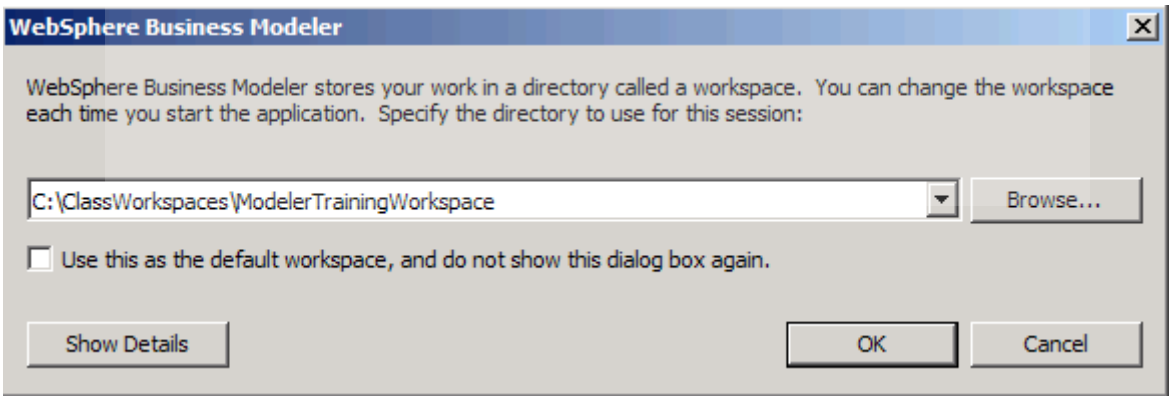
For classroom using VMware image, use the following:

Login ID: `administrator`

Password: `wbi42x@IBM`

__ 1. From windows, Navigate **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Enter the following: `C:\ClassWorkspaces\TrainingWorkspace`


WebSphere Business Modeler
WebSphere Business Modeler stores your work in a directory called a workspace. You can change the workspace each time you start the application. Specify the directory to use for this session:
C:\ClassWorkspaces\ModelerTrainingWorkspace
Browse...
Use this as the default workspace, and do not show this dialog box again.
Show Details
OK
Cancel

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Do **not** check the **Use this as the default...** check box as you may specify a different workspace when starting the Modeler.

__ 3. Click **OK**.

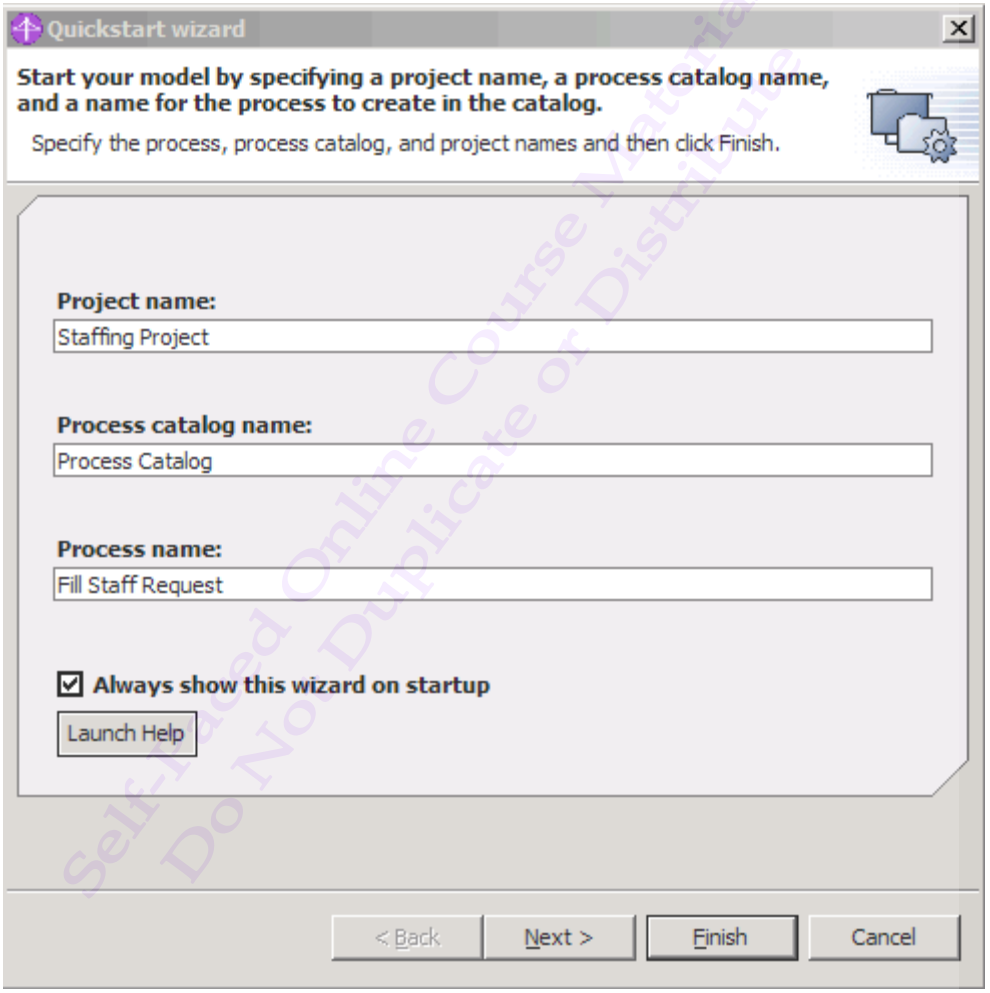
Business Modeler launches, and the **Welcome** page and **Quickstart wizard** are displayed.

__ 4. From the **Quickstart wizard** window, enter the following:

__ a. **Project name**: `Staffing Project`

__ b. **Process catalog name**: `Process Catalog`

__ c. **Process name**: `Fill Staff Request`


Quickstart wizard
Start your model by specifying a project name, a process catalog name, and a name for the process to create in the catalog.
Specify the process, process catalog, and project names and then click Finish.
Project name:
Staffing Project
Process catalog name:
Process Catalog
Process name:
Fill Staff Request
Always show this wizard on startup
Launch Help
< Back
Next >
Finish
Cancel

__ 5. Click **Next**.

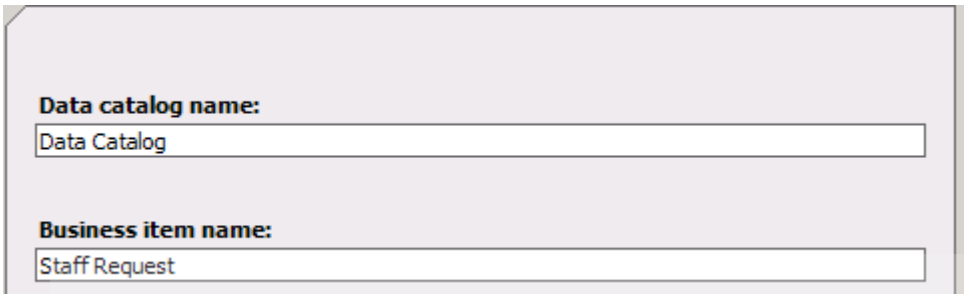
__ 6. Enter the following for business items:

__ a. **Data catalog name**: `Data Catalog`

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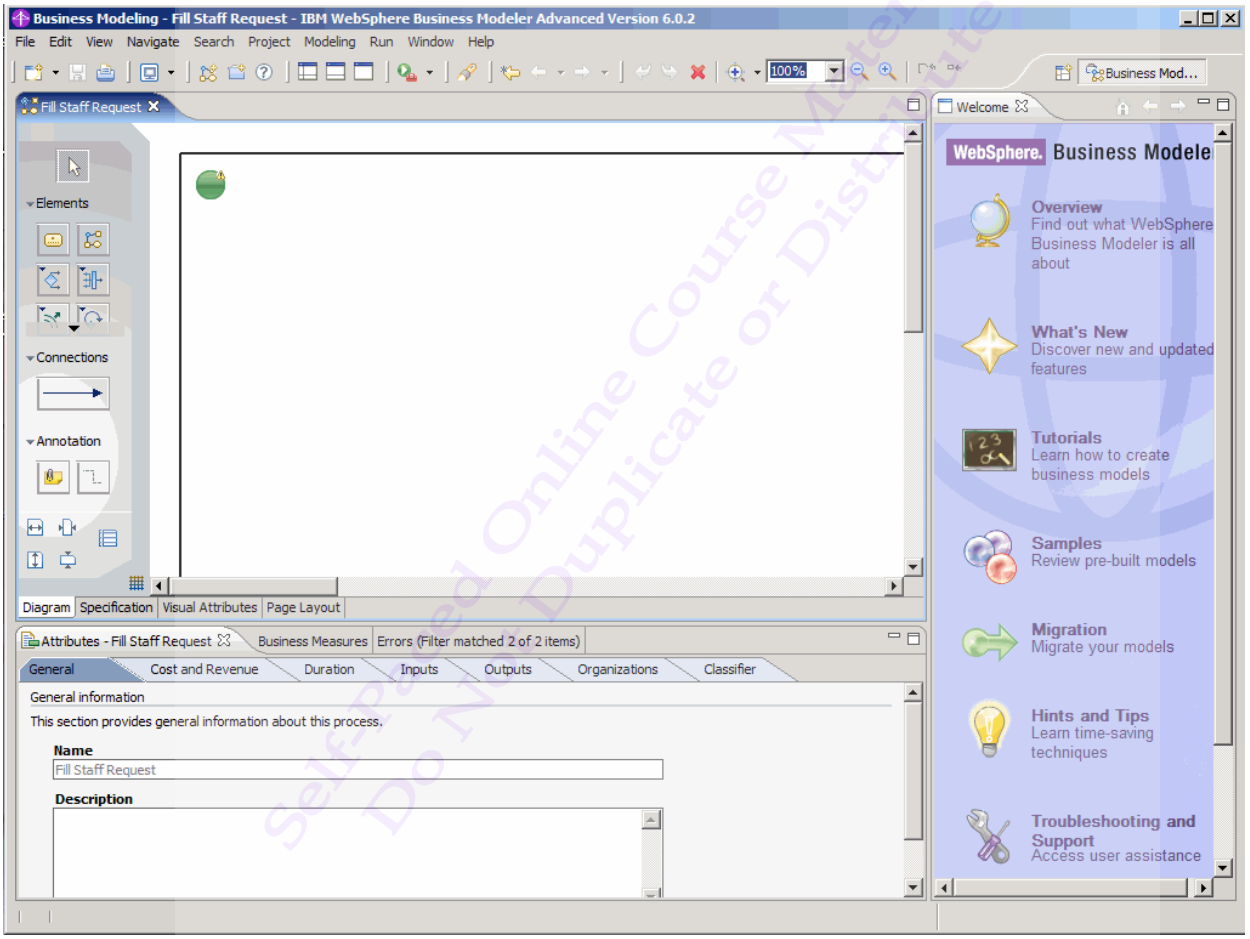
__ b. **Business item name**: `Staff Request`



__ 7. Click **Finish**.

It will take a few moments to create the project.

The process editor of **Fill Staff Request** will be displayed on the Modeler.



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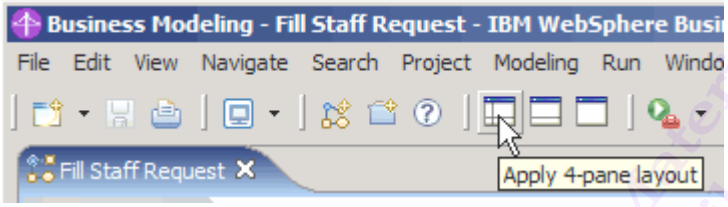
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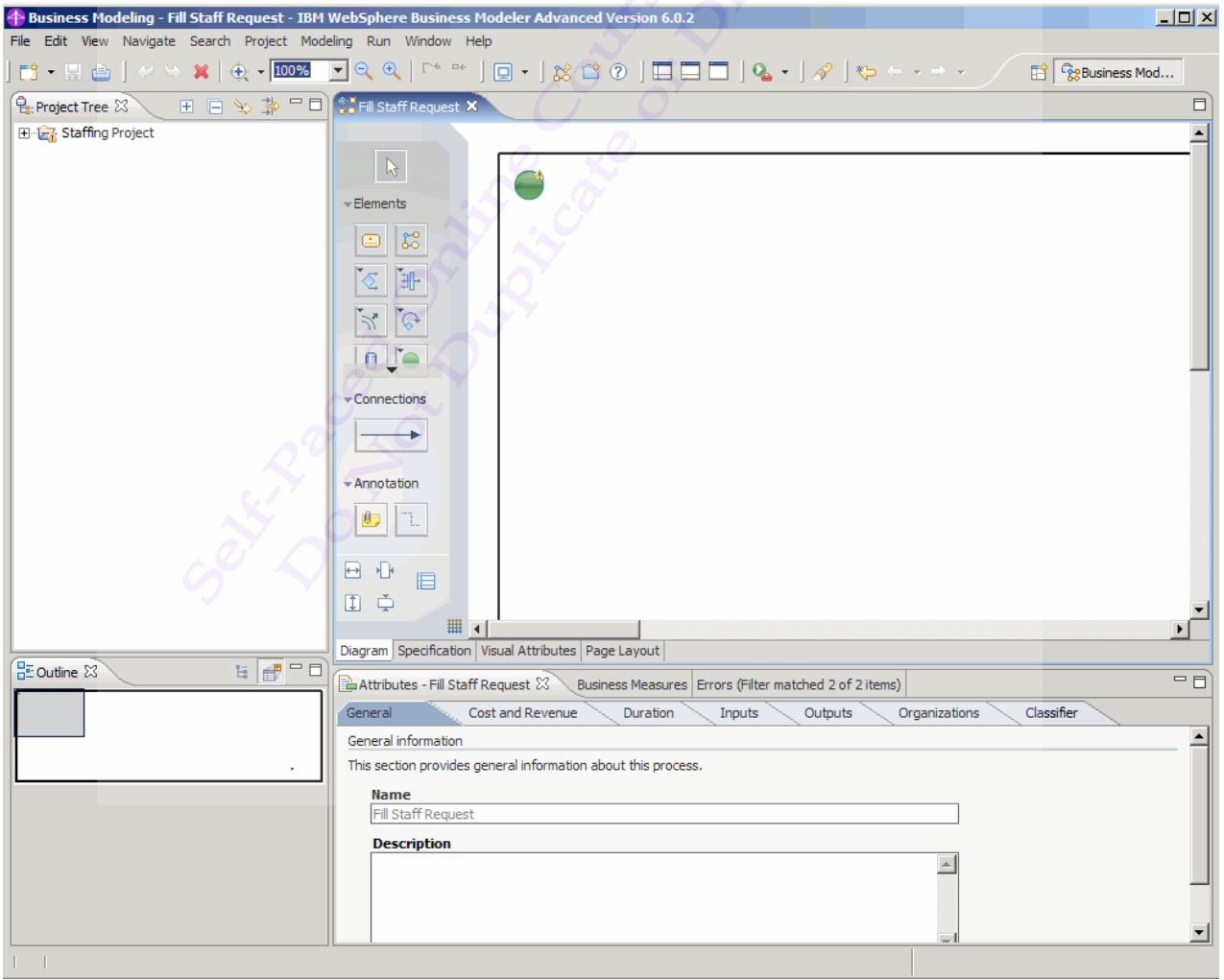
__ 8. Close the **Welcome** page on the right.



__ 9. Click the **Apply 4-pane layout** button from the toolbar.


Business Modeling - Fill Staff Request - IBM WebSphere Busi
File Edit View Navigate Search Project Modeling Run Windo
Fill Staff Request
Apply 4-pane layout

The Modeler now displays the following four panes (**Project Tree**, **Outline**, **process editor**, and **Attributes** views).


Business Modeling - Fill Staff Request - IBM WebSphere Business Modeler Advanced Version 6.0.2
File Edit View Navigate Search Project Modeling Run Window Help
Project Tree
Staffing Project
Fill Staff Request
Elements
Connections
Annotation
Diagram Specification Visual Attributes Page Layout
Outline
Attributes - Fill Staff Request
Business Measures
Errors (Filter matched 2 of 2 items)
General Cost and Revenue Duration Inputs Outputs Organizations Classifier
General information
This section provides general information about this process.
Name
Fill Staff Request
Description

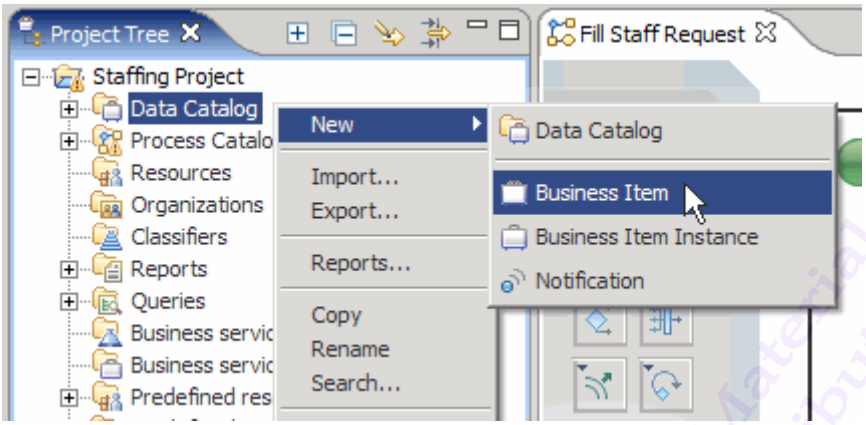
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Part 2: Adding business item

__ 1. In the Project Tree, expand the **Staffing Project.**

__ 2. To add a business item, right-click **Data Catalog**, and select **New** —> **Business Item**.



The **Create a new business item** dialog box appears.

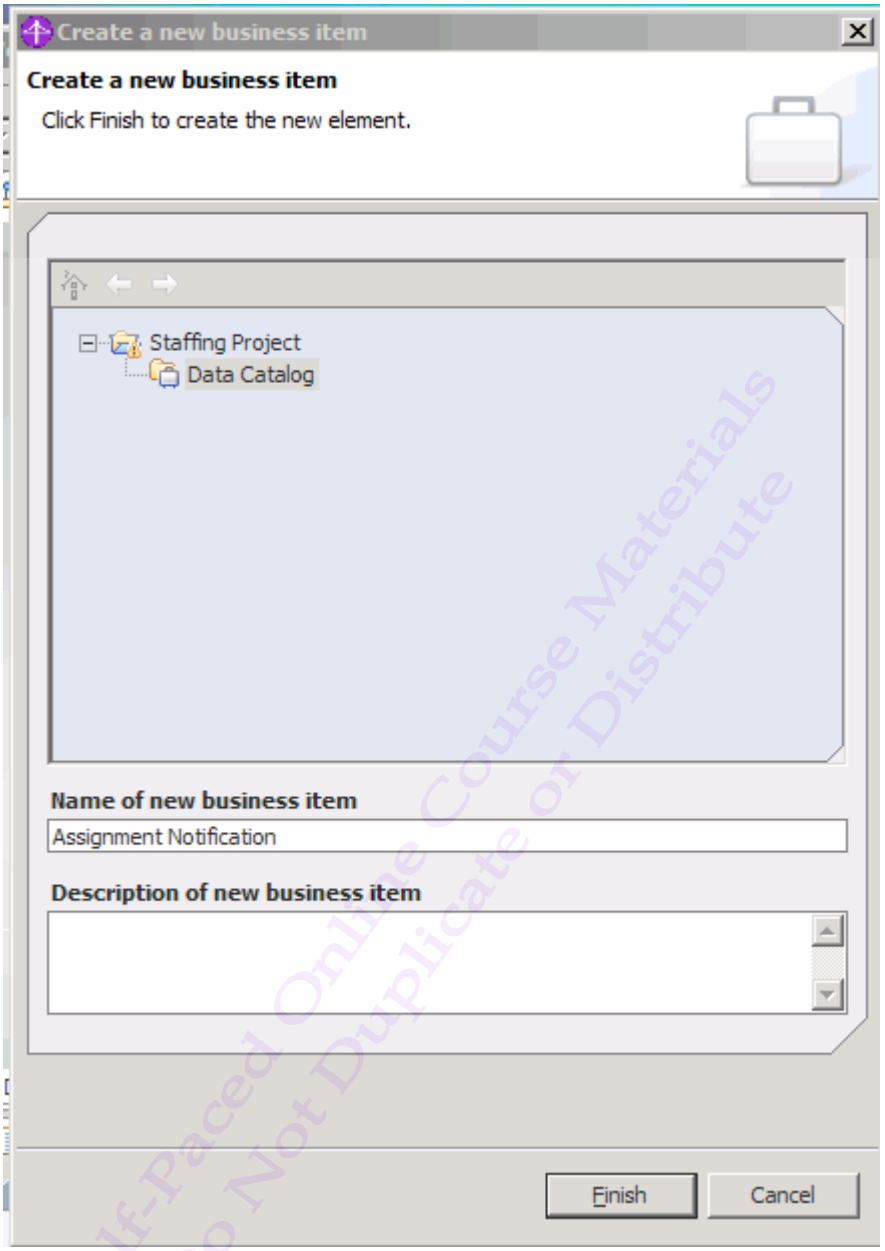
__ 3. Enter the following information for the new business item:

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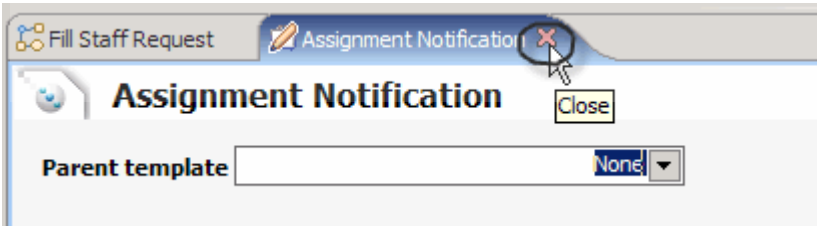
__ a. **Name of new business item**: `Assignment Notification`



__ 4. Click **Finish.**

An editor for the business item opens. You will not enter any attributes at this time.

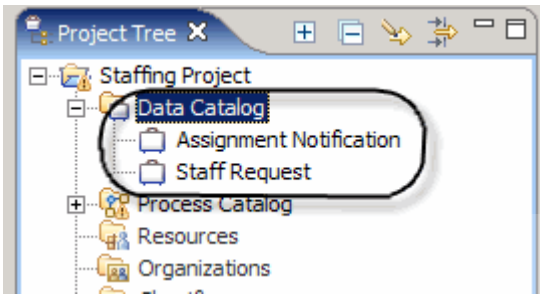
__ 5. Close the editor for Assignment Notification.



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__ 6. The following two business items should now appear in the Project Tree: Staff Request and Assignment Notification.



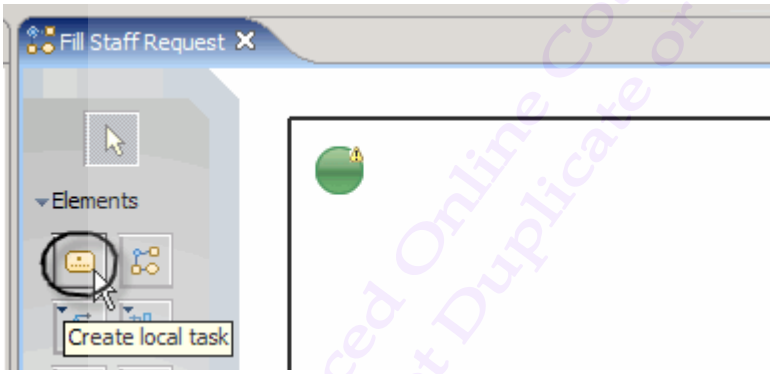
Part 3: Constructing the process diagram

Notice that the start node and stop node are placed in the diagram by default. The stop node is placed automatically at the bottom far right corner of the diagram, and you will need to scroll all the way to the right to see the stop node.

__ 1. Click the **Apply 1-pane layout** button from the toolbar to display the process editor.

The **process editor** pane is displayed.

__ 2. Click the **Task** button on the palette in the process editor.



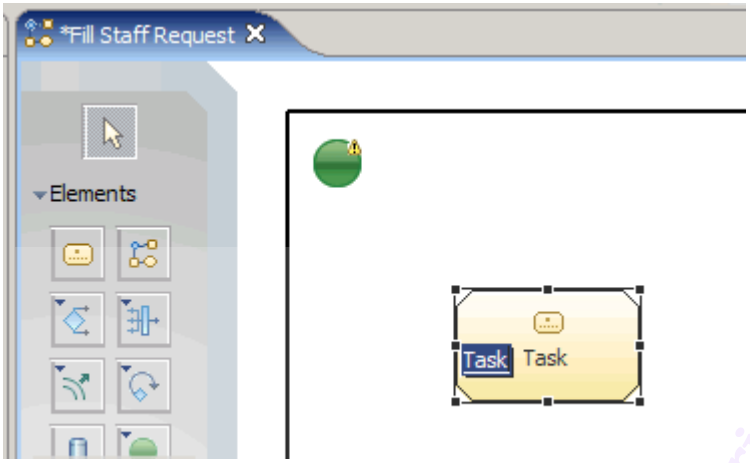
Note

The warning symbols (⚠), on both the Start and stop nodes, are caused by missing incoming connections. The warnings will disappear after the diagram is saved at a later step.

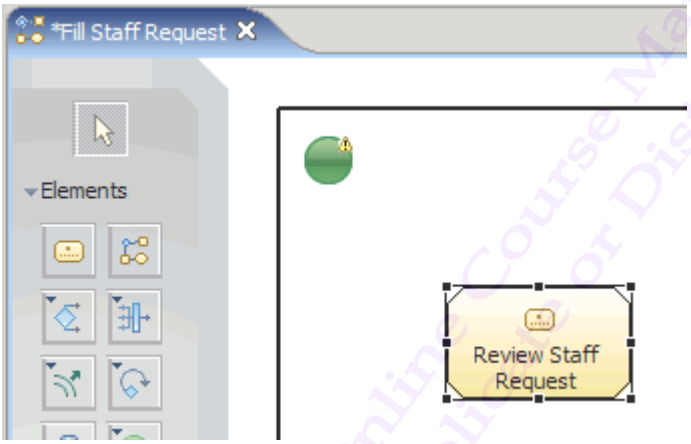
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__ 3. Move the mouse to drop a task onto the blank diagram.



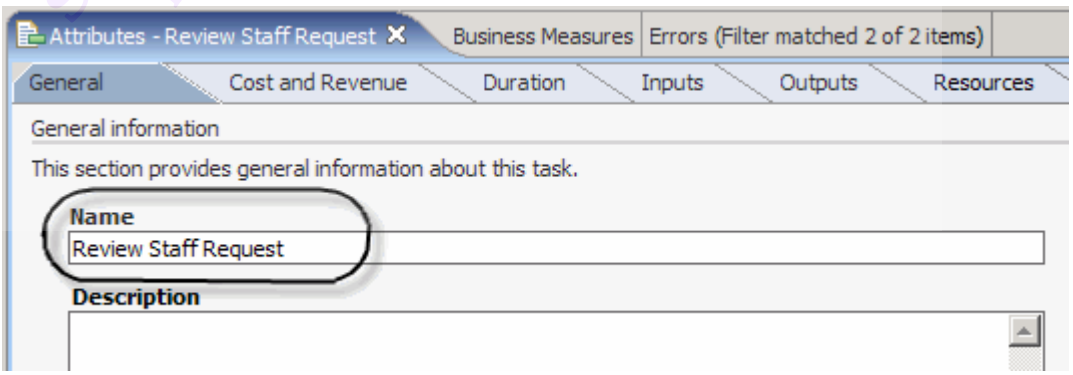
__ 4. Enter `Review Staff Request` to replace "Task" and press **Enter**.



Note

There are two ways to rename a task:

- Single-click the task name of the task in the diagram and enter new name, or
- Select the task from the diagram and enter the new name in the Attributes pane (in 2-pane or 4-pane layout), as shown below:

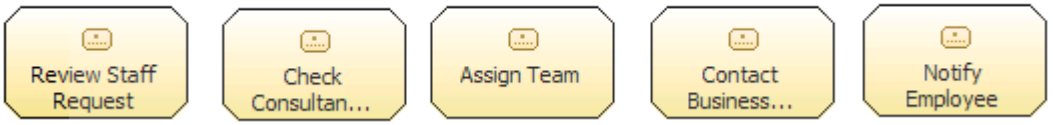


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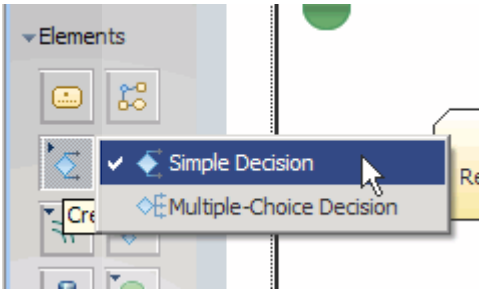
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__ 5. Repeat the previous steps to insert four additional tasks:

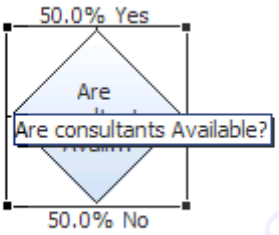
Check Consultant Availability
Assign Team
Contact Business Partner
Notify Employee



Click the drop-down arrow of the **Decision** button, select **Simple Decision**, and drop it onto the diagram.



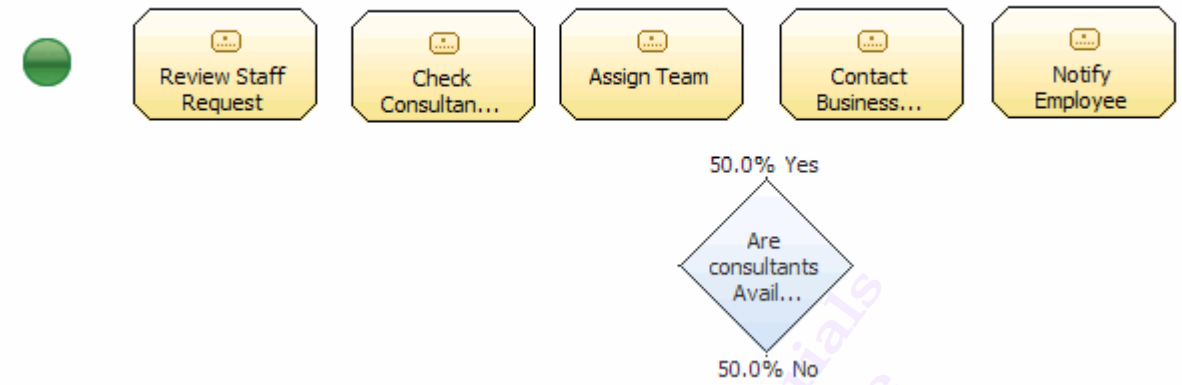
__ 6. Label the **decision** as **Are Consultants Available?**



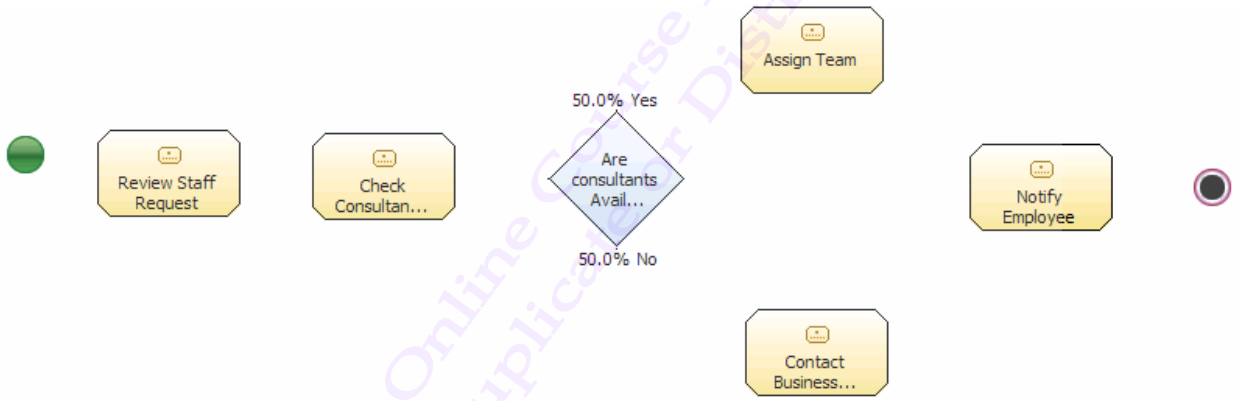
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The diagram should have the following elements:



__ 7. Arrange all the elements in the diagram as follows:



Note

The stop node is placed by default on the far right of the diagram. To find the stop node, scroll to the far right of the diagram.

__ 8. From the palette, click the **Connection** button. .

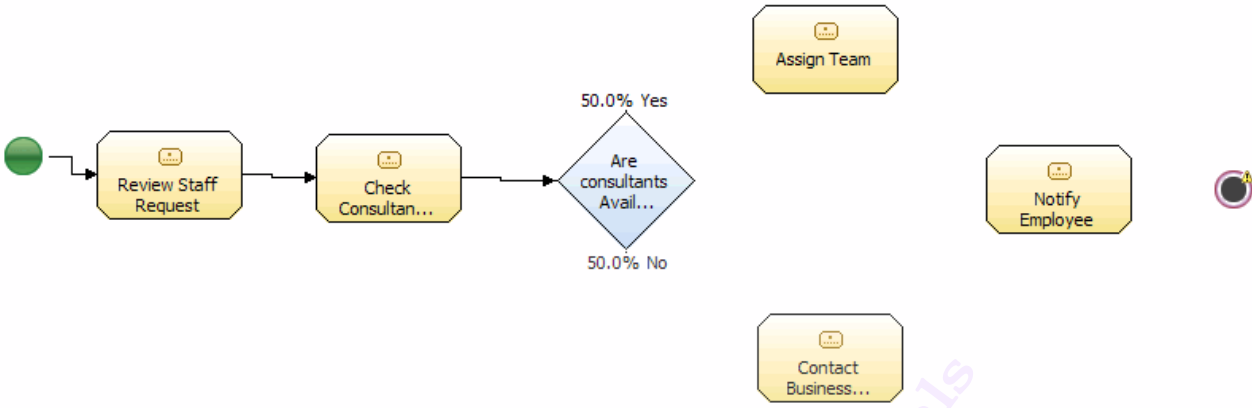
__ 9. Click the green **start node** and click the **Review Staff Request** task to add a connector between the two elements.



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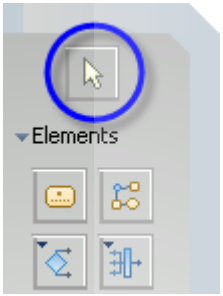
__ 10. Connect the first two tasks with the decision in the diagram as follows:



Note

Do not connect the decision with the rest of the tasks yet. You will do so in next section.

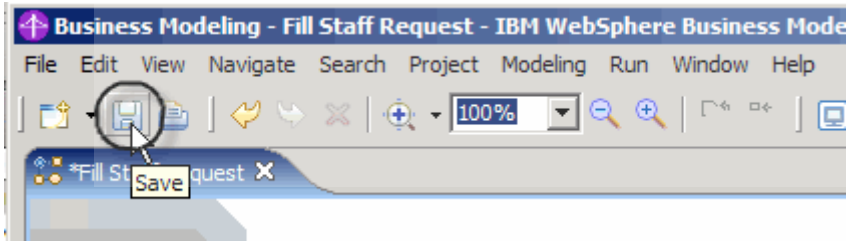
__ 11. To exit the connection mode, click the arrow button from the palette.



Note

You can also hit the **ESC** key to release the connection mode.

__ 12. Click the Save button on the toolbar.

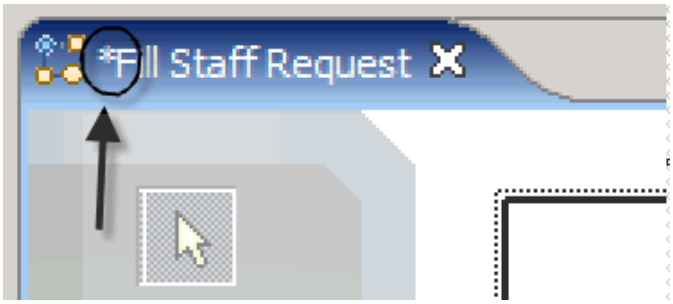

Business Modeling - Fill Staff Request - IBM WebSphere Business Mode
File Edit View Navigate Search Project Modeling Run Window Help
100%
Save

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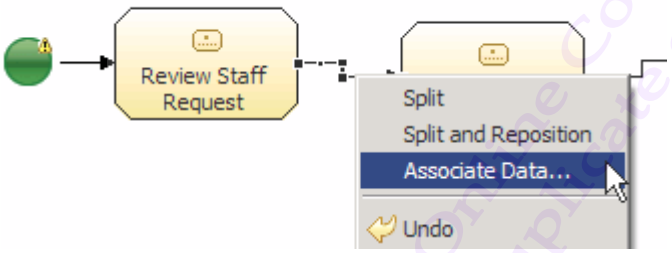
Note

The (*) on the editor indicates that there are unsaved changes. You can also hit Ctrl+S to save the changes.



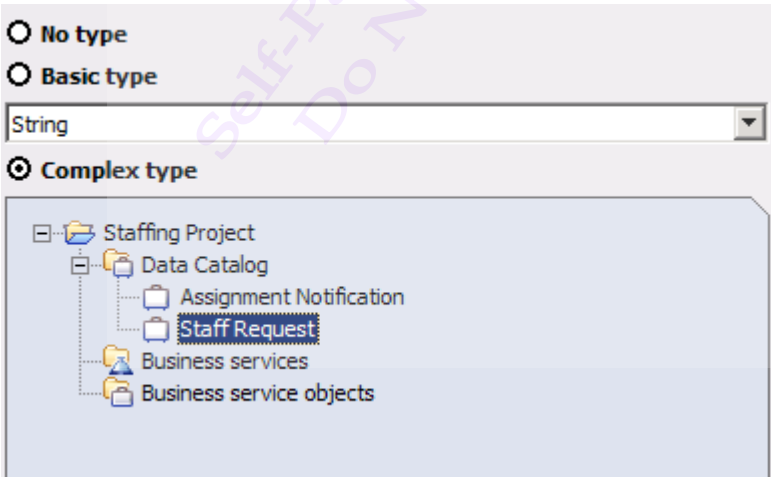
Part 4: Associating business items

__ 1. Right-click the connector between the **Review Staff Request** task and the **Check Consultant Availability** task, and select **Associate Data...**



The **Select Type** dialog box is displayed.

__ 2. Select **Staff Request** as shown below.

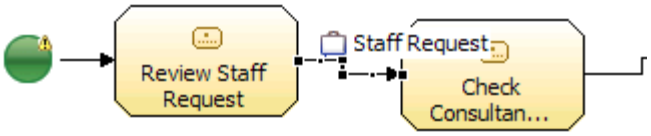


__ 3. Click **OK** to continue.

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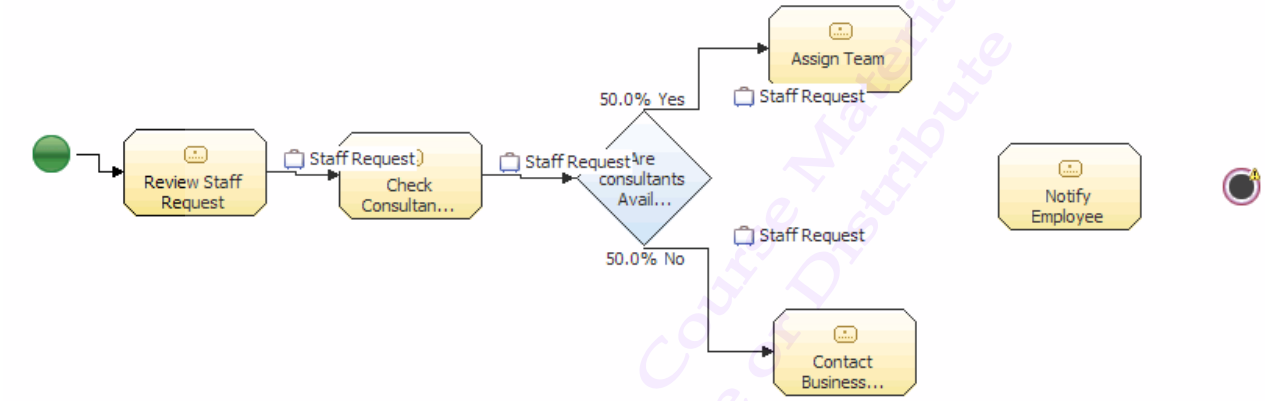
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In the diagram, the business item, `Staff Request`, is now associated with the connector between the **Review Staff Request** task and the **Check Consultant Availability** task.



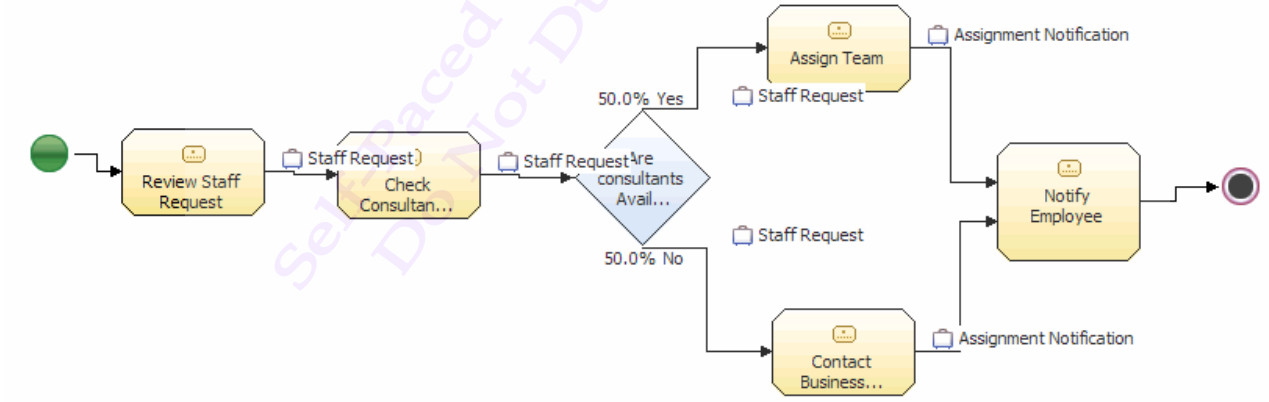
__ 4. Repeat the previous steps to associate the **Staff Request** to the connection between the **Check Consultant Availability** task and the decision.

__ 5. Now you connect the decision object to the rest of the tasks as follows:



The connections for the “Yes” and “No” paths out of the decision will be associated with the Staff Request automatically.

__ 6. Connect the rest of the tasks and associate business items as follows:



__ 7. Save changes made to the diagram (Ctrl+S).

Part 5: Importing a project

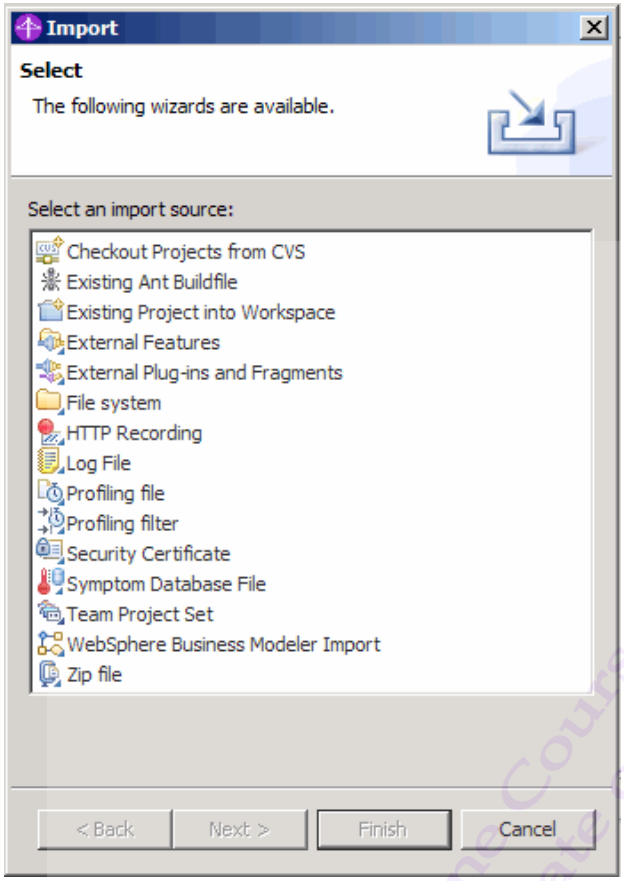
This section will guide you to import a sample project into your workspace.

__ 1. In Modeler, click **File —> Import**.

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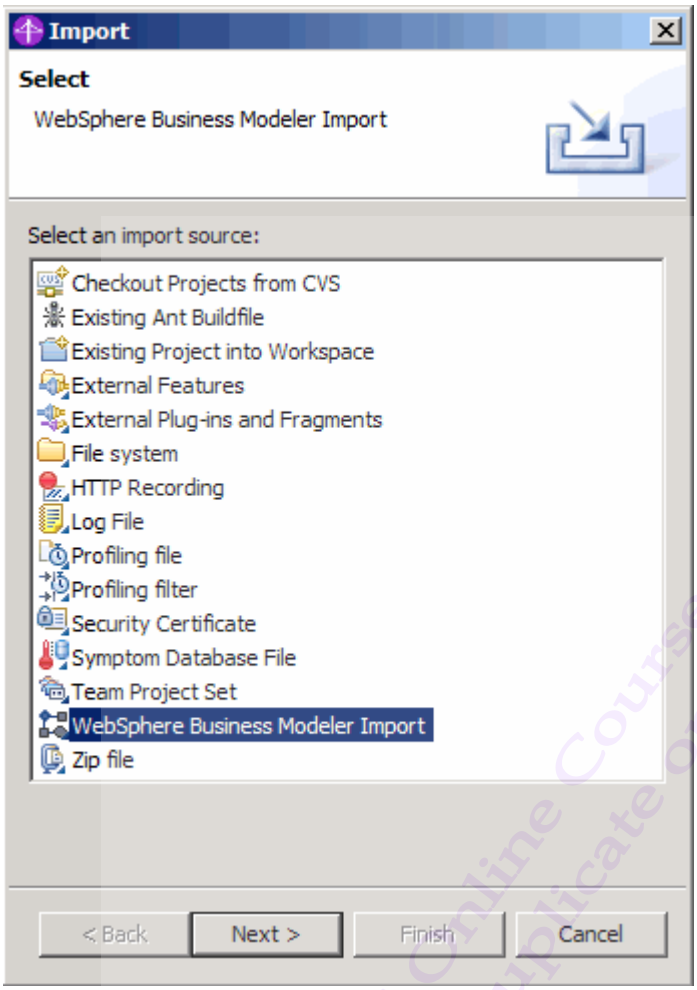
The **Import** window is displayed.



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__ 2. Under **Select an import source**, select the **WebSphere Business Modeler Import** option.



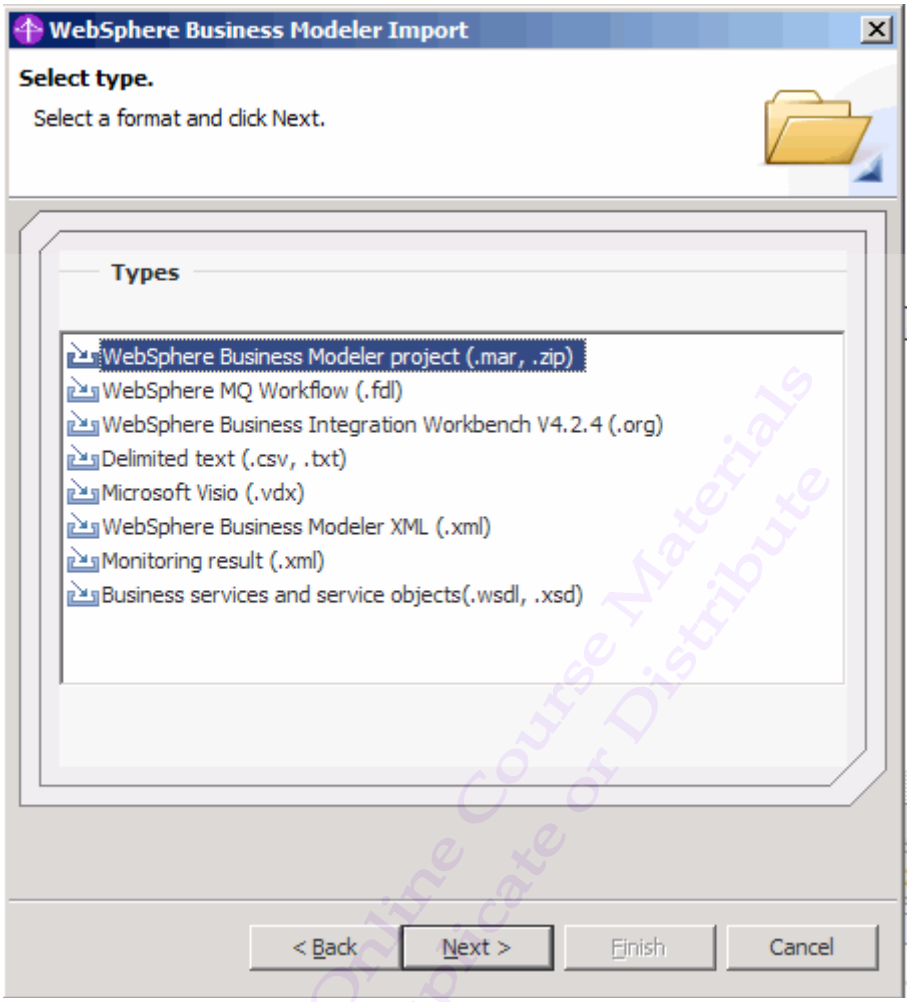
__ 3. Click **Next**.

The **WebSphere Business Modeler Import** window opens.

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__ 4. Select **WebSphere Business Modeler Project (.mar, .zip)** as **Type**.



__ 5. Click **Next**.

The **WebSphere Business Modeler Import** screen is displayed.

__ 6. Click the **Browse** button from the **Source directory**.

__ 7. Navigate to folder `C:\Program Files\IBM\WebSphere\Modeler6\samples`

__ 8. Click **OK**.



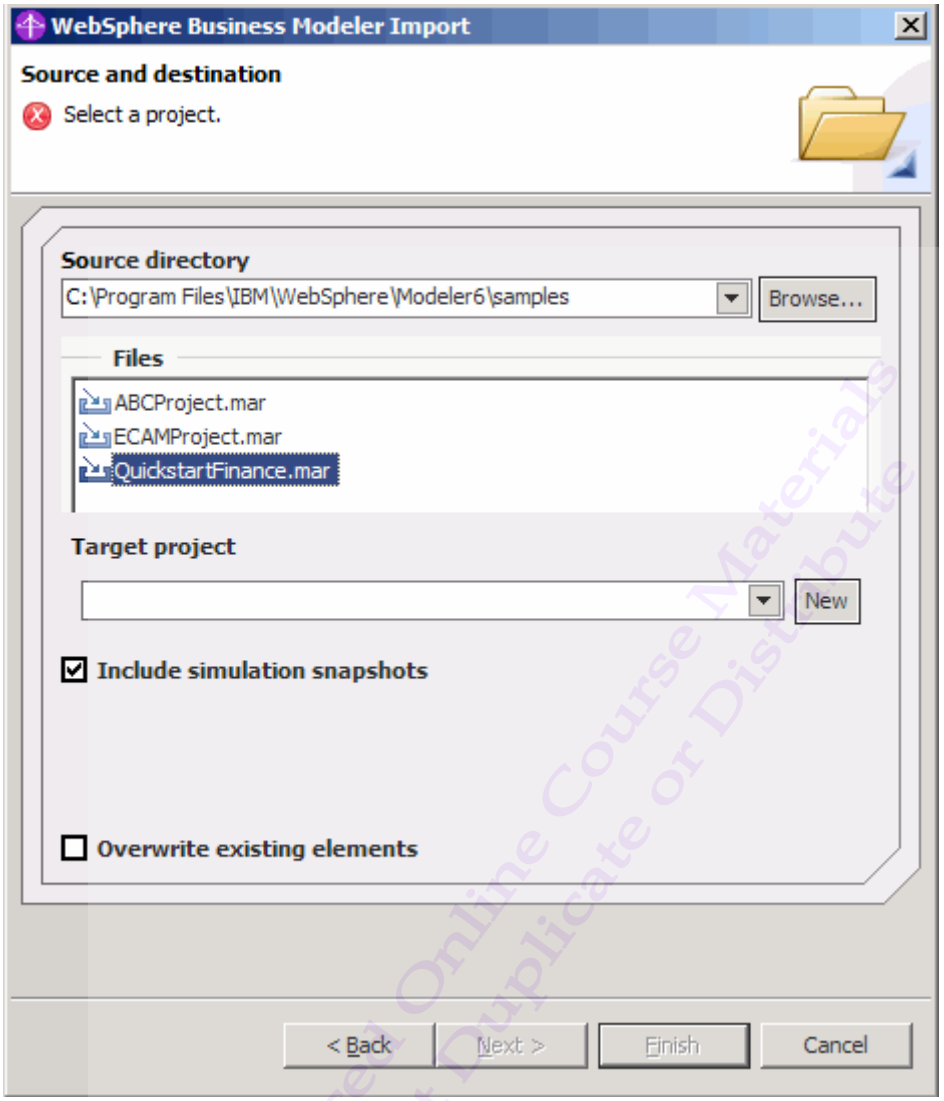
Note

You may enter directly or copy and paste the directory path to the Source directory.

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__ 9. Select `QuickstartFinance.mar` from **Files**.



__ 10. Click the **New** button next to the **Target project** field.

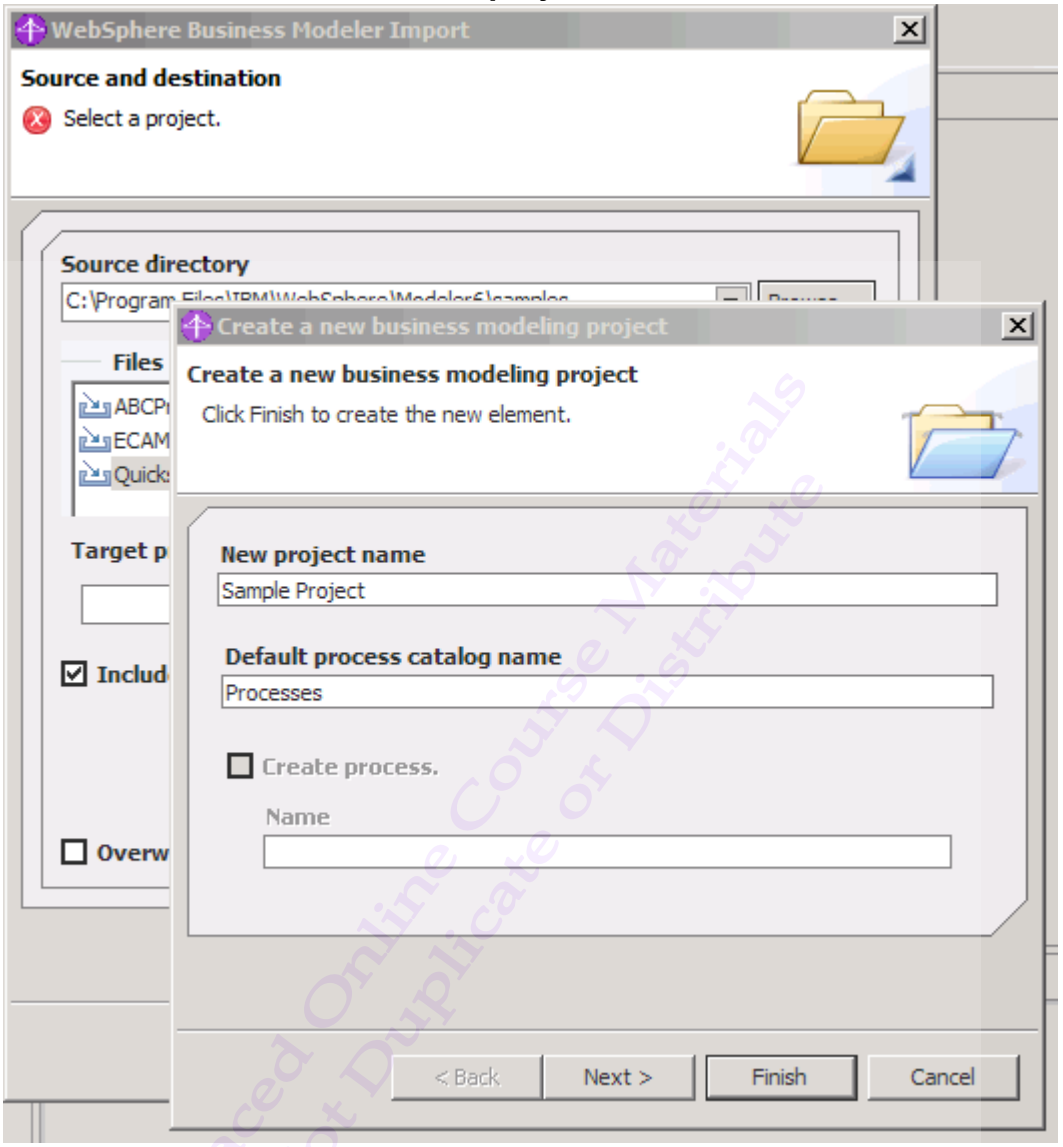
The Create a new business modeling project will display.

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__ 11. Enter `Sample Project` as the **New project name**.



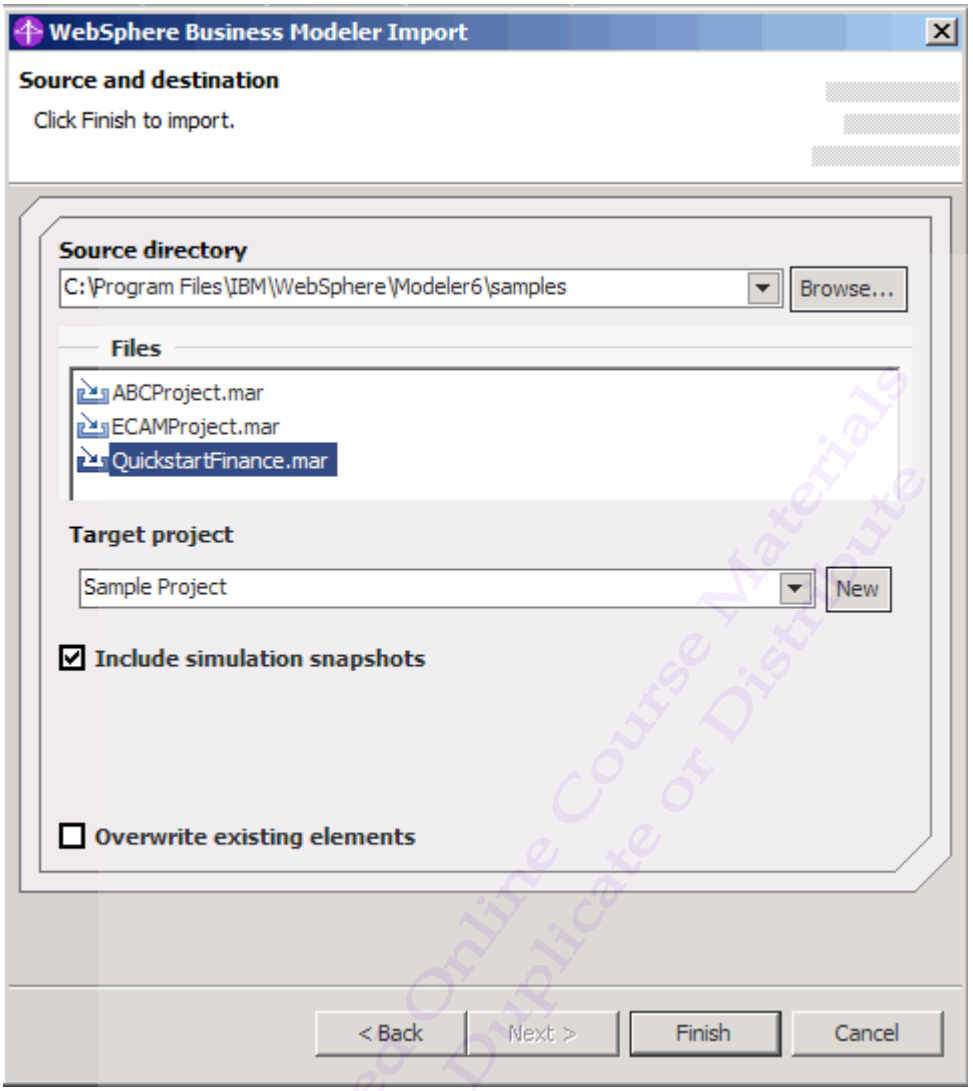
__ 12. Click **Finish** to close the **Create a new business modeling project** window.

The new Sample Project is created.

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__ 13. Click **Finish** to begin the import.

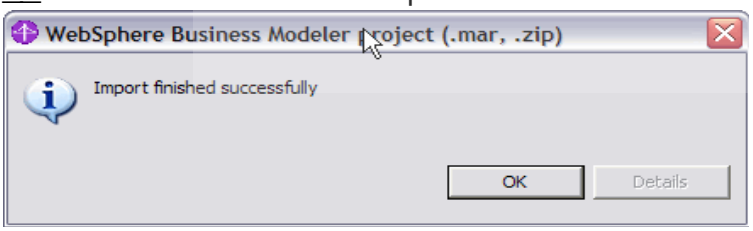


Note

If an **Overwrite** window is displayed, click **Yes to all**.

It takes a few minutes for the project elements to be imported.

__ 14. Click **OK** when the import is finished.



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Part 6: Examining Project Tree

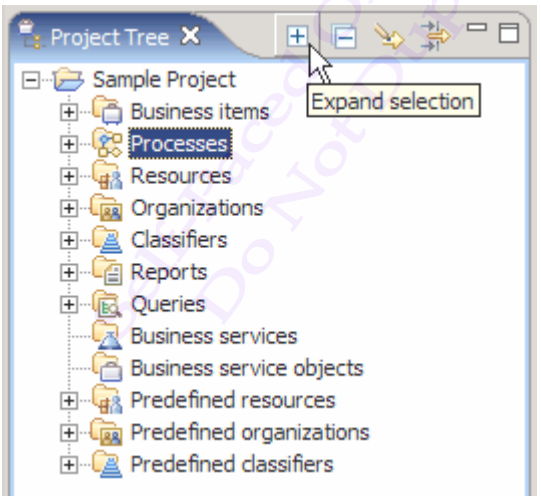
Now the QuickstartFinance project has been imported as Sample Project in the workspace. You will examine some of the components within the project.

The toolbar of the Project Tree view contains the following buttons:

Button	What it does
	Expands all branches of the Project Tree view at or under the branch you have selected.
	Collapses all branches of the Project Tree view.
	Enables you to choose whether the navigation view selection is linked to the active editor. When linking is enabled, each time you change to another editor, the Project Tree view changes to show the element you are editing. Click this button to enable linking, and click it again to disable linking.
	Opens a window that you can use to select the types of items that are displayed in the tree. For example, you can choose to display only the processes and data (without the organizations or resources).
	Minimizes the view.
	Maximizes the view to a single-pane layout. To return to the previous layout, click the **Restore** button.
	Closes the view. To reopen the Project Tree view, click the **Apply 4-pane layout** button on the main toolbar.

In the Project Tree, you can use the expand (+) button to expand the selected folders of the **Sample Project**.

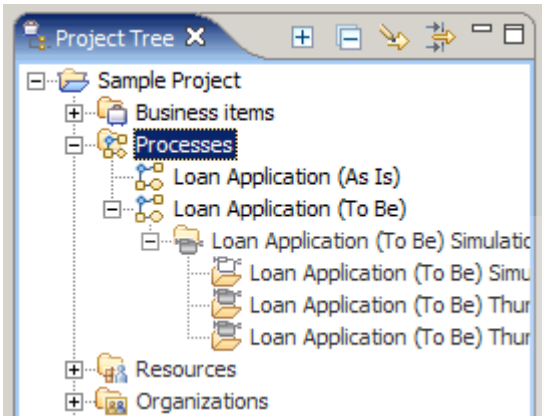
__ 1. Select the **Processes** from the Project Tree and click the expand (+) button.



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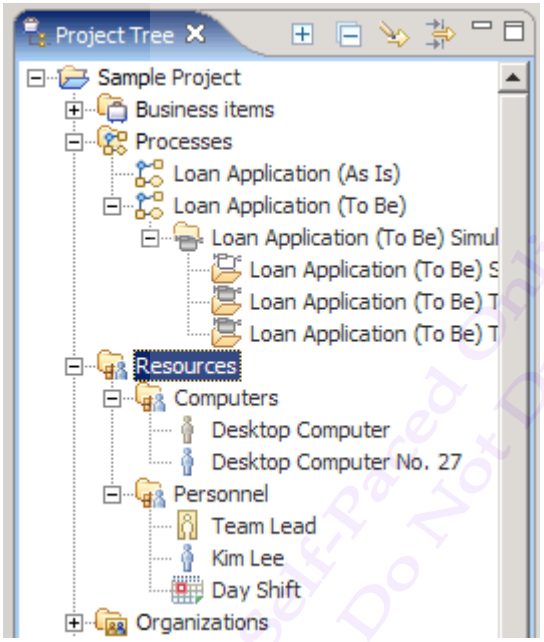
You will see all the entries under the processes folder and there are two processes, Loan Application (As Is) and Loan Application (To Be) in this folder.



__ 2. Select the **Resources** folder in the Project Tree.

__ 3. Click the expand (+) button.

You will see all the entries under the Resources folder and there are two types of resources catalogs, Computers and Personnel.

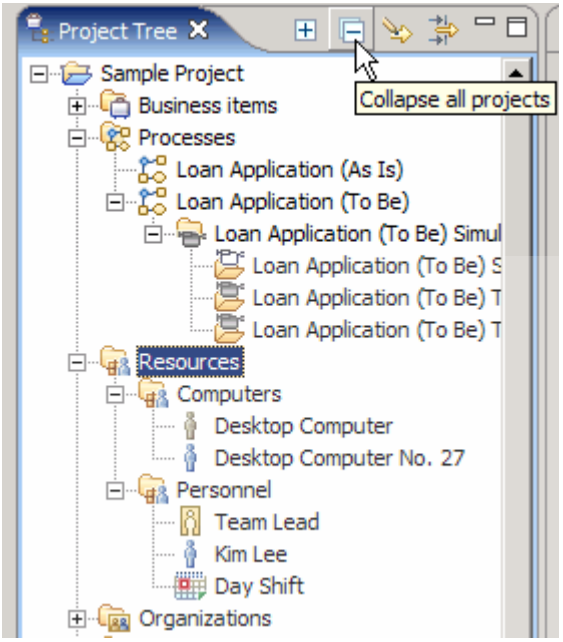


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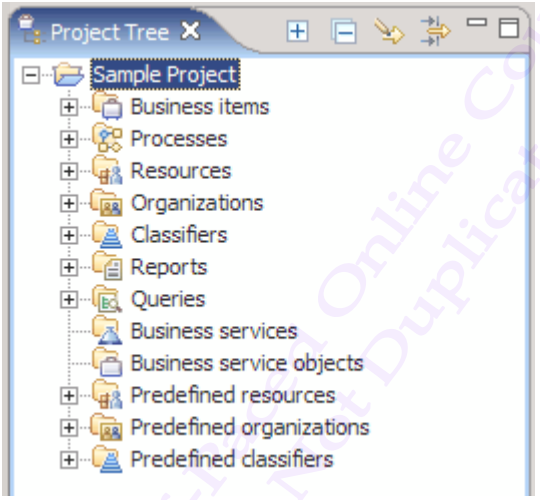
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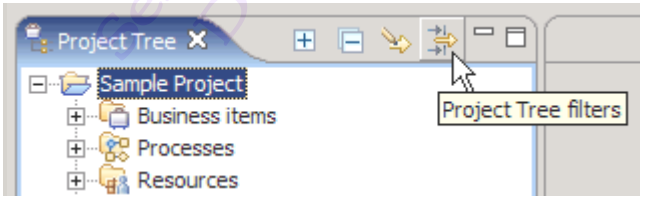
__ 4. Click the collapse (-) button to collapse all.



__ 5. Expand the Sample Project folder in the Project Tree.



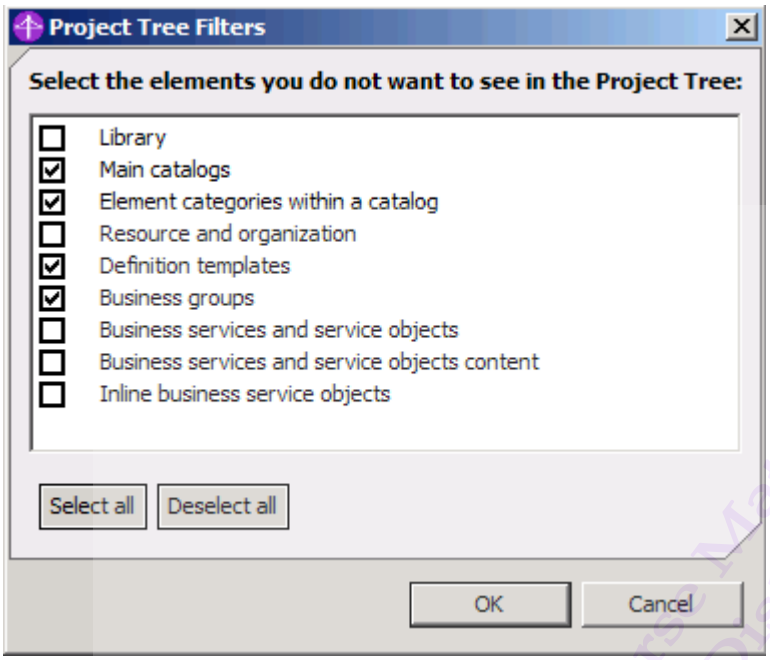
__ 6. Click the **Project Tree filters** button.



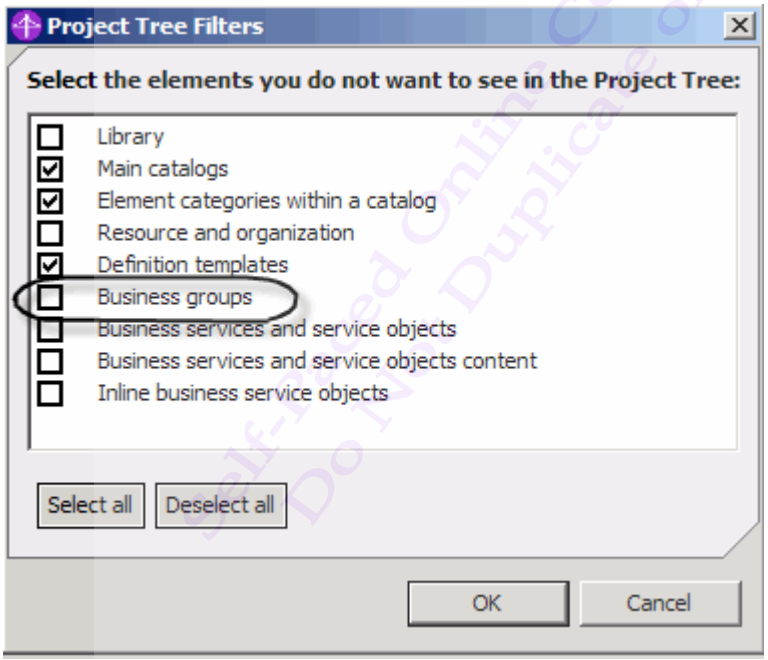
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The Project Tree filter window opens, and it allows you to select the elements that you do not wish to display.



__ 7. Clear the check box for **Business groups**.

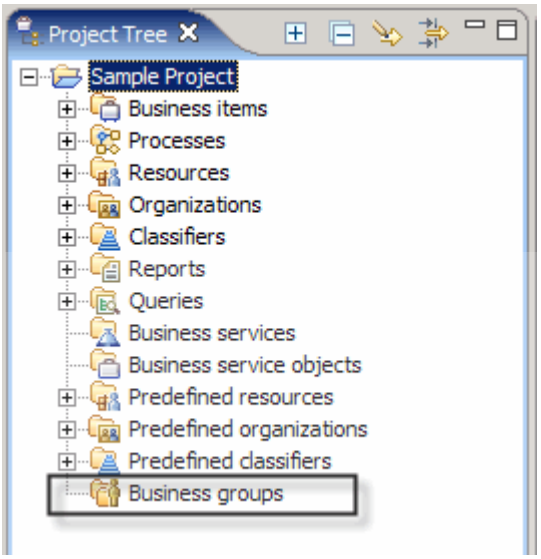


__ 8. Click **OK**.

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Now the Business groups display on the Project Tree.



Note

You can use business groups to collect any elements within a project that you would like to group together. Business groups enable you to create your own groupings rather than using the hierarchy provided in the Project Tree view.

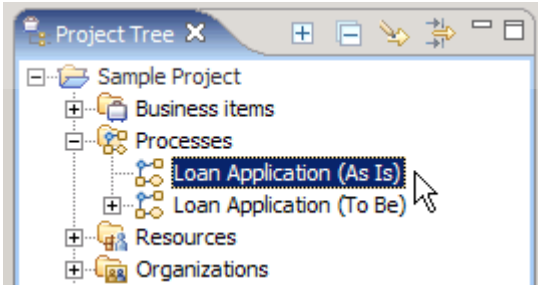
Part 7: Exploring the process editor

Process editor is the largest pane on the screen, and it is where you do most of your work. You can use the process editor to visually compose your process flow. You can also add existing elements to a process diagram by dragging them from the Project Tree view, including the following types of elements:

- Tasks
- Processes
- Repositories
- Services

__ 1. Expand the **Processes** folder in the Project Tree.

__ 2. Open the **Loan Application (As Is)** process by double-clicking the process name.

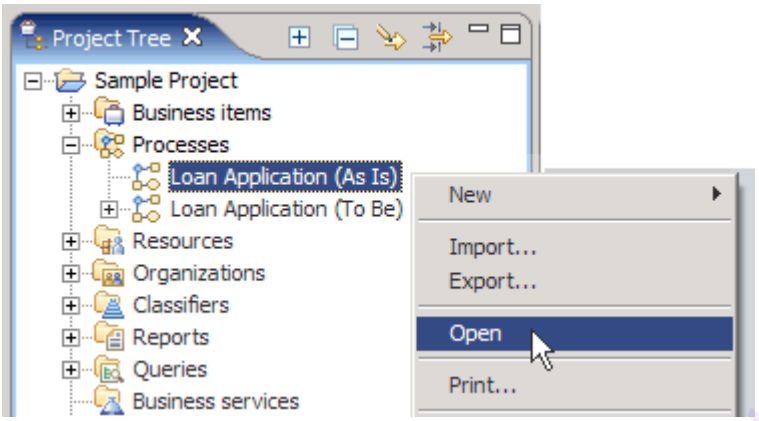


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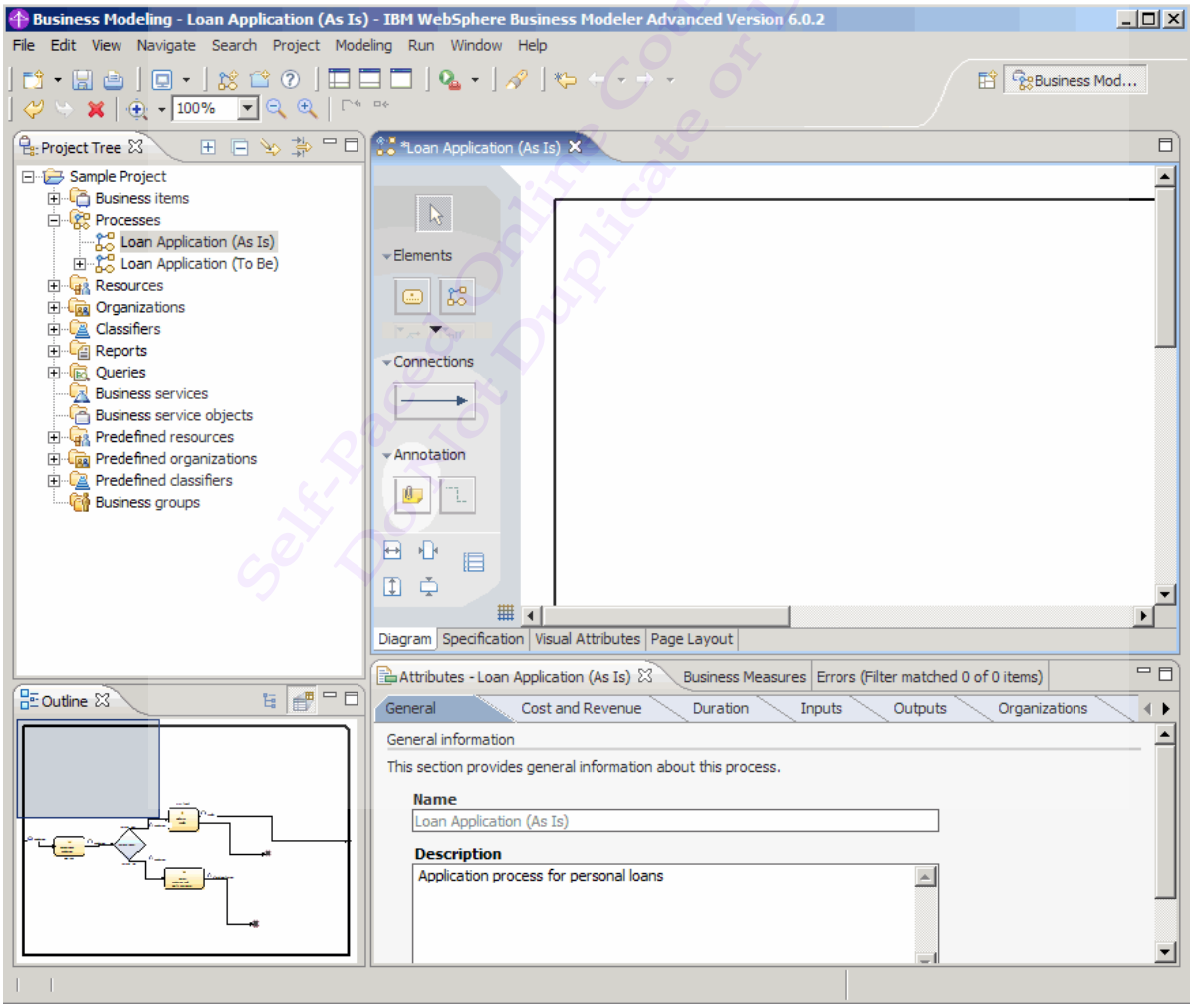
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Note

You can also open the process by selecting the process, and right-click to select **Open**.



The Loan Application (As Is) process will be displayed on the process editor on the right, and both the Outline view and the Attribute view appear.

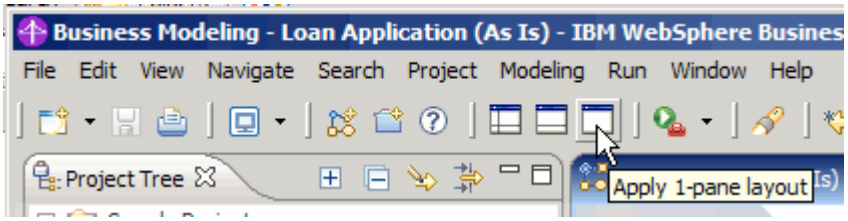

Business Modeling - Loan Application (As Is) - IBM WebSphere Business Modeler Advanced Version 6.0.2
File Edit View Navigate Search Project Modeling Run Window Help
Project Tree
Loan Application (As Is)
Elements
Connections
Annotation
Diagram Specification Visual Attributes Page Layout
Outline
Attributes - Loan Application (As Is)
Business Measures
Errors (Filter matched 0 of 0 items)
General Cost and Revenue Duration Inputs Outputs Organizations
General information
This section provides general information about this process.
Name
Loan Application (As Is)
Description
Application process for personal loans

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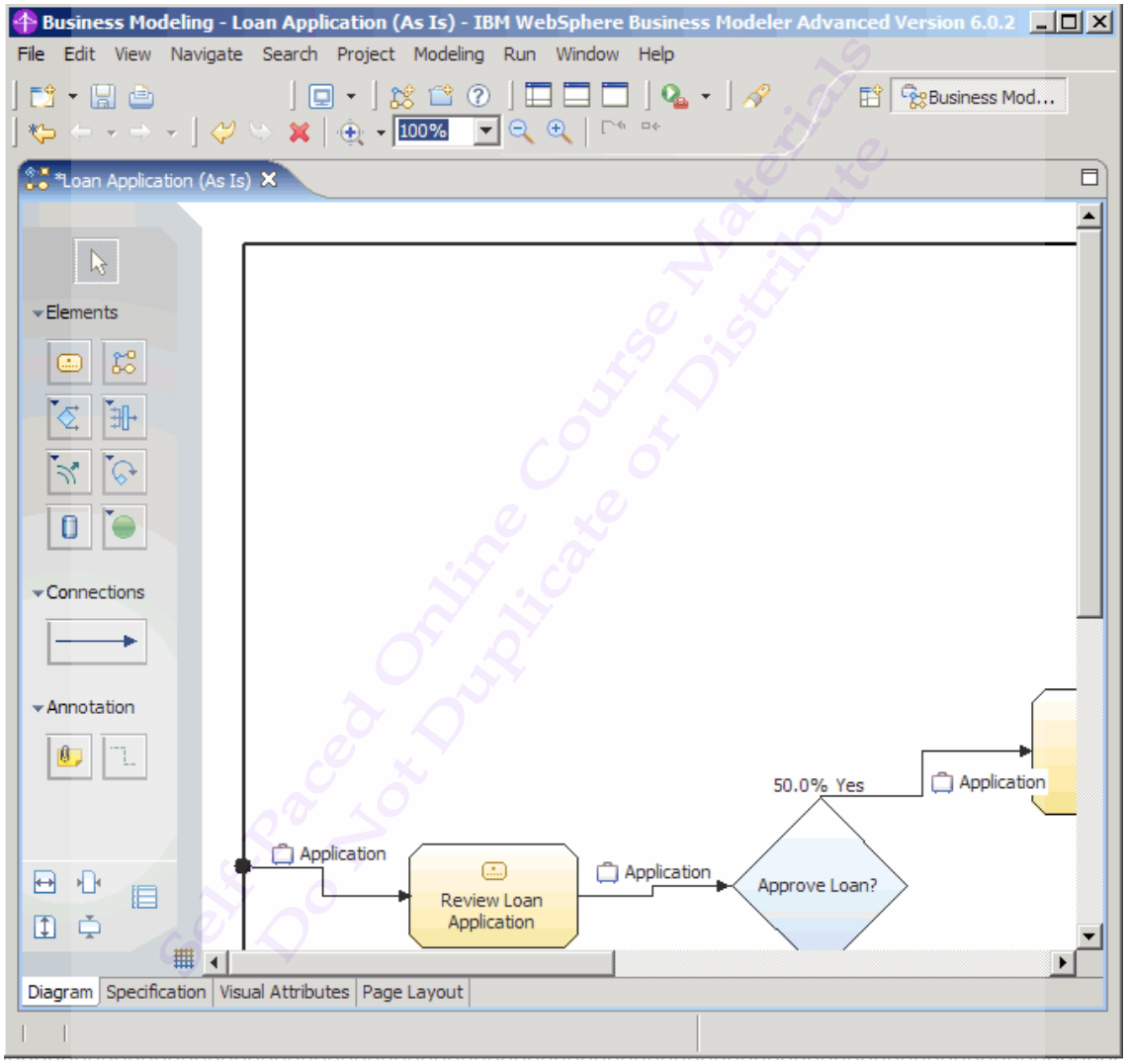
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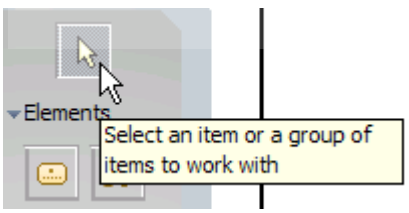
__ 3. Click the **Apply 1-pane layout** button from the toolbar so that you can focus on the process diagram.


Business Modeling - Loan Application (As Is) - IBM WebSphere Busines
File Edit View Navigate Search Project Modeling Run Window Help
Project Tree
Apply 1-pane layout

Now only the process editor displays on the Modeler.



__ 4. You may use the Arrow icon to select an item or a group of items.

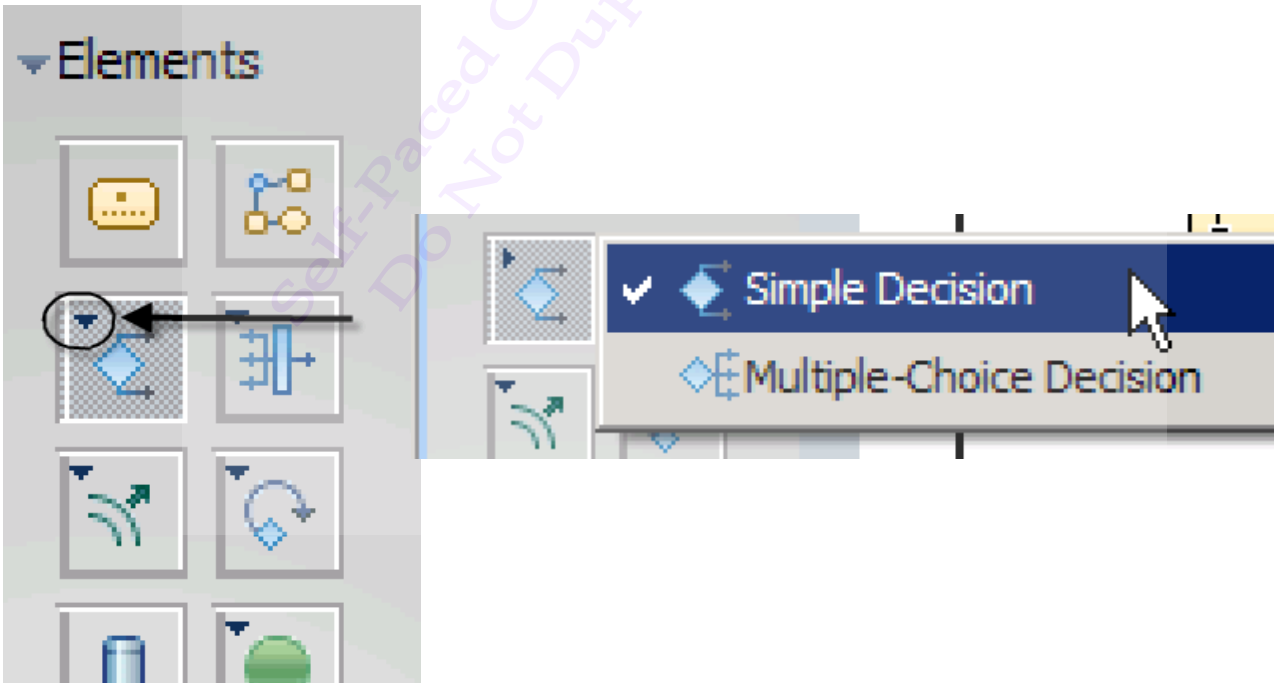


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__ 5. You may drag any of the elements from the palette onto the diagram.



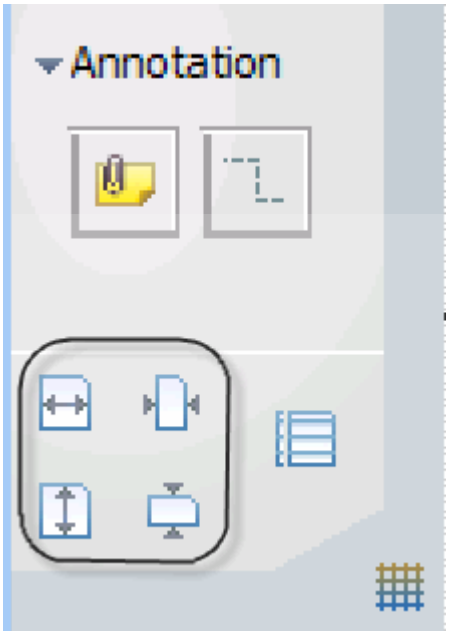
__ 6. Click the small triangle on the upper left of the icon to display the pull-down selection for additional elements.



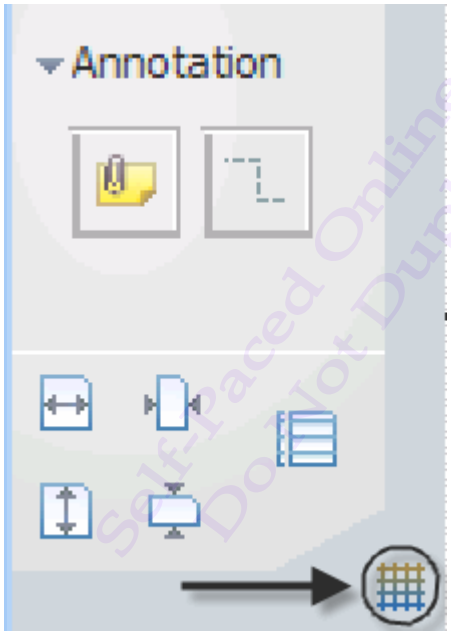
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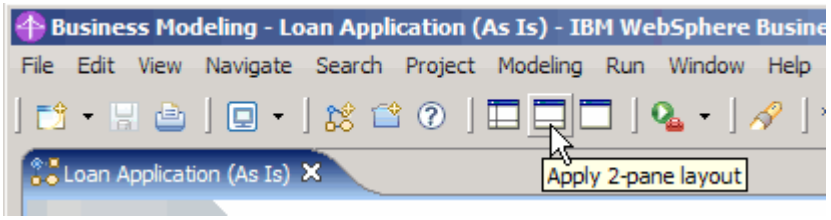
__ 7. Click any of the following icons from the palette to increase or decrease the spaces in the diagram.



__ 8. Click the **Toggle grid on editor** to show or hide gridlines.



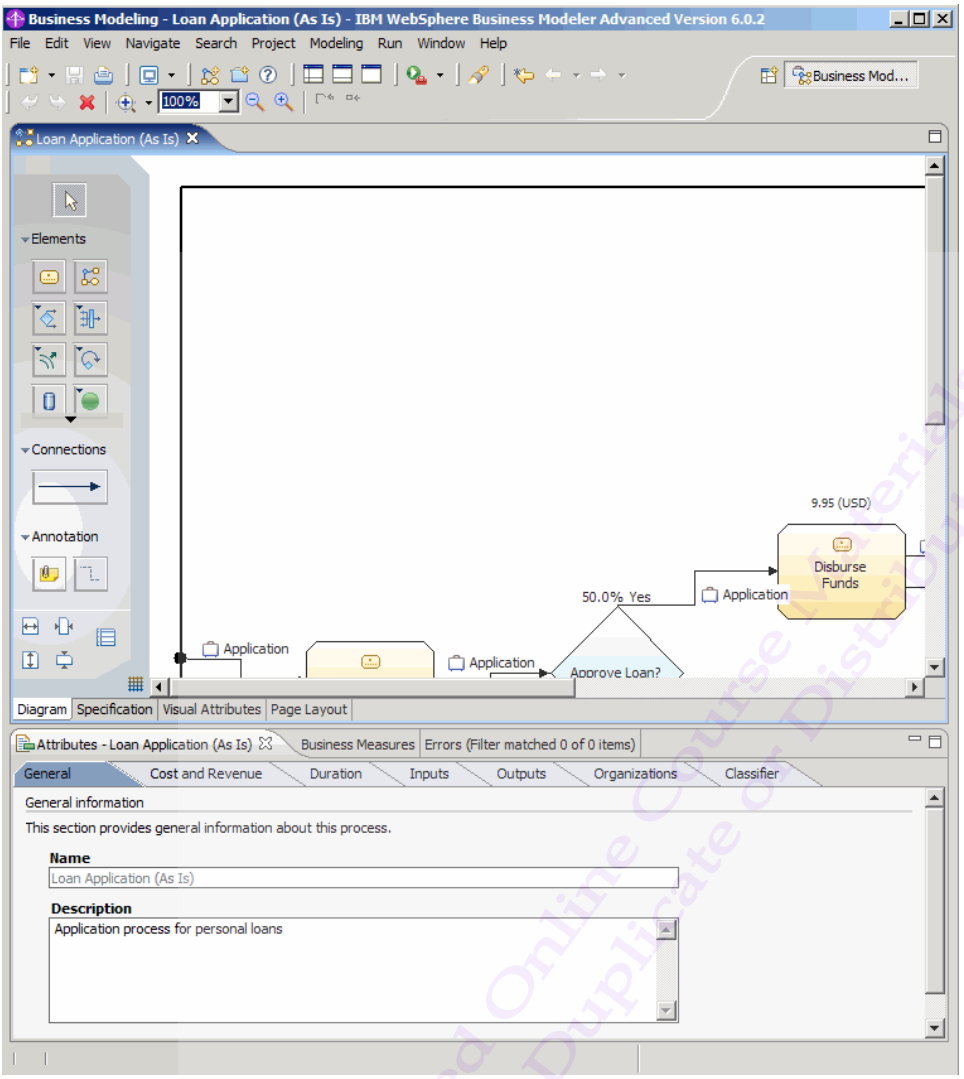
__ 9. Click the **Apply 2-pane layout** button from the toolbar.


Business Modeling - Loan Application (As Is) - IBM WebSphere Busine
File Edit View Navigate Search Project Modeling Run Window Help
Loan Application (As Is)
Apply 2-pane layout

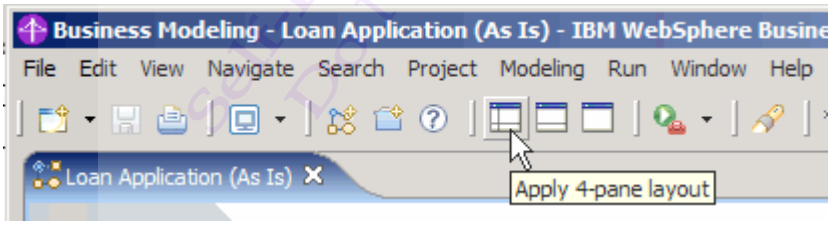
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Now both the process editor and the attributes view display on the Modeler.



__ 10. Click the **Apply 4-pane layout** button from the toolbar to resume four panes displayed on Modeler.


Business Modeling - Loan Application (As Is) - IBM WebSphere Busine
File Edit View Navigate Search Project Modeling Run Window Help
Loan Application (As Is)
Apply 4-pane layout

Part 8: Exploring the Outline view

The Outline view displays a thumbnail of the diagram that is currently open in the process editor. You can drag the highlighted area in the Outline view to show a different area of the diagram in the process editor. This is a convenient function for viewing specific sections of large, complex diagrams. If you want to go to a particular element in a diagram, a quick and precise way is to use the Outline view.

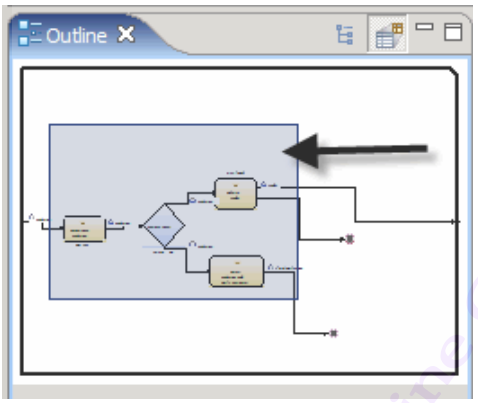
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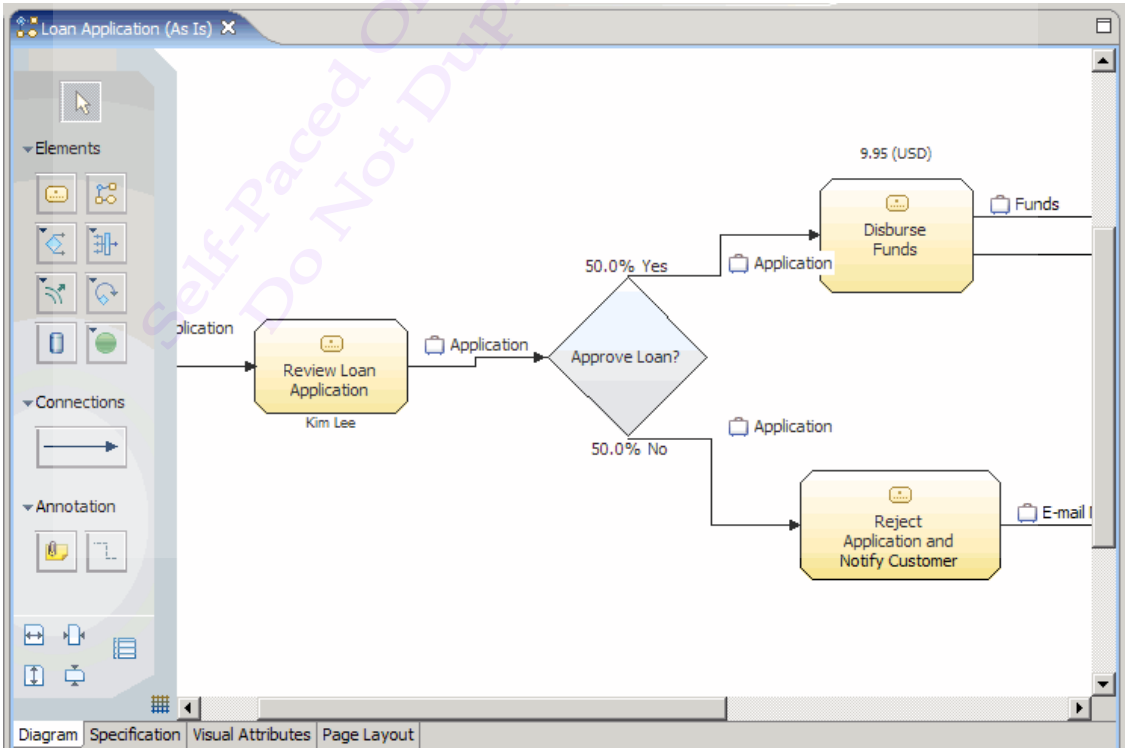
The toolbar of the Outline view contains the following buttons:

Button	What it does
	Displays the process in a tree structure
	Displays the entire process diagram in a small thumbnail window. Drag the highlight box to navigate to the highlighted area in the larger diagram.
–	Minimizes the view.
	Maximizes the view to a single-pane layout. To return to the previous layout, click the **Restore** button.
×	Closes the view. To reopen the Outline view, click the **Apply 4-pane layout** button on the main toolbar.

__ 1. Use your mouse to drag the highlighted area to focus on the four elements in the **Outline** view.



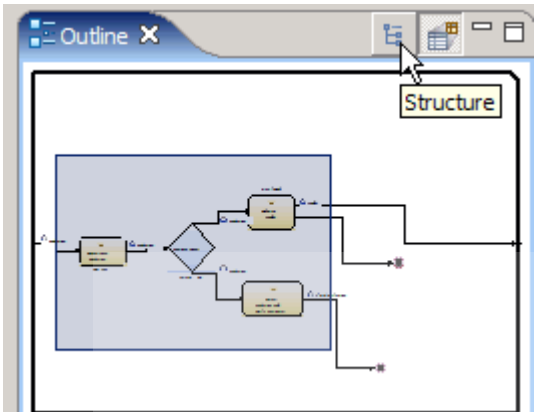
It now navigates to the highlighted area in the process editor.



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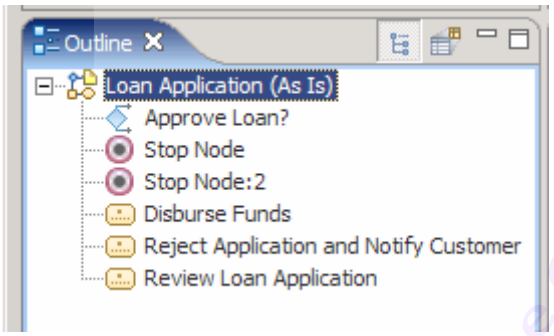
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__ 2. Click the **Structure** button on the Outline view.



__ 3. Expand the **Loan Application (As Is)** process.

The Outline view now will display the list of elements in a tree view used in the diagram.



Note

The tree view in the Outline view is listed in order by the type of element and then the name of the element.

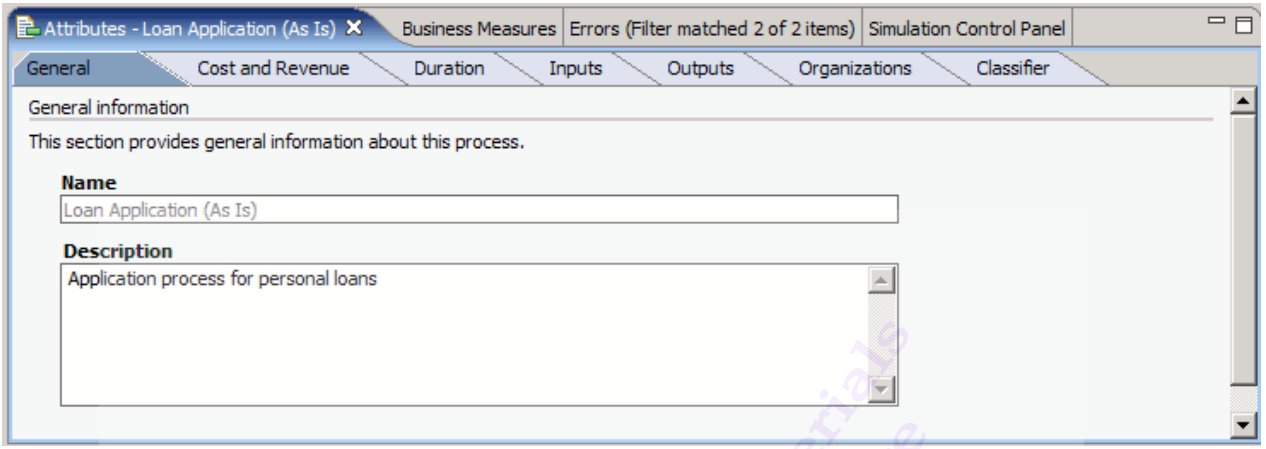
Part 9: Exploring the attributes view

The Attributes view, which is located under the process editor, shows the details of any element you select in the diagram. You can click each of the tabs to see more information about the element.

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The following image shows part of the Attributes view for the process of Loan Application (As Is).



You will have a chance to work with this view in the later exercises.

Part 10: WebSphere games: Flashcard

Introduction

The flashcard applet is designed to help you learn and understand new vocabulary and concepts that you have learned in this module. Each card contains a new term you have learned in class. The "back" of the card contains the definition of the term. It is your task to memorize all the new terms and their definitions.

You may play the flashcard game after completion of each lab exercise.

__ 1. Enable the Web browser (Internet Explorer 6) to run Java applets.

__ a. Go to **Tools —> Internet options...** in Internet Explorer.

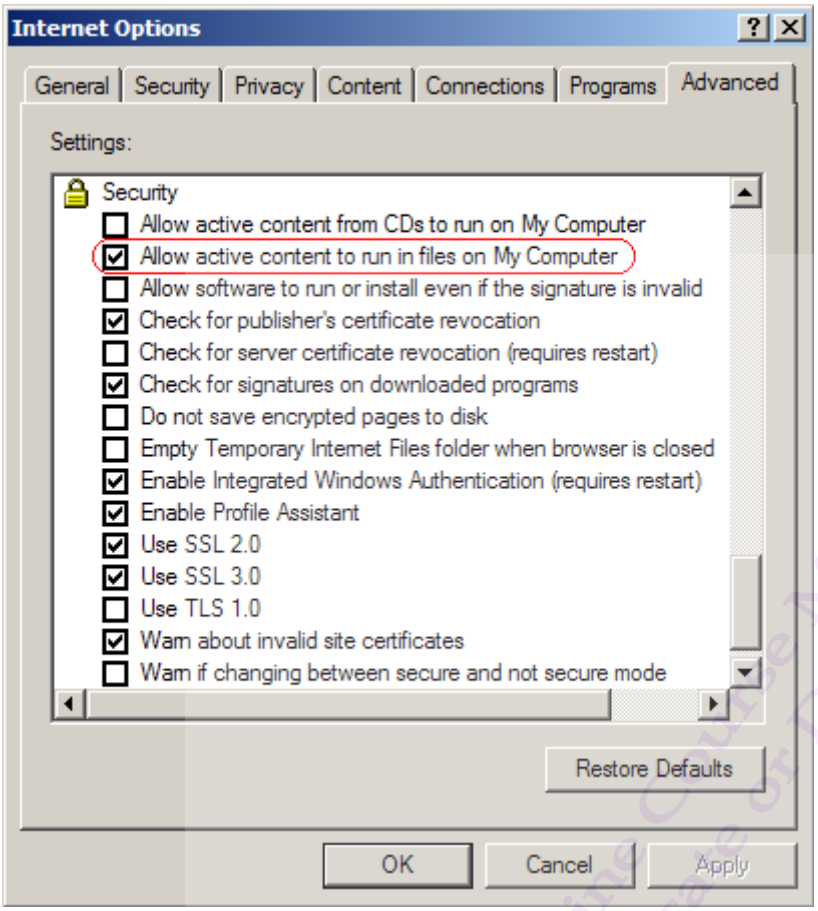
__ b. Go to the **Advanced** tab.

__ c. Scroll down to the **Security** section.

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__ d. Enable **Allow active content to run in files on My Computer**.



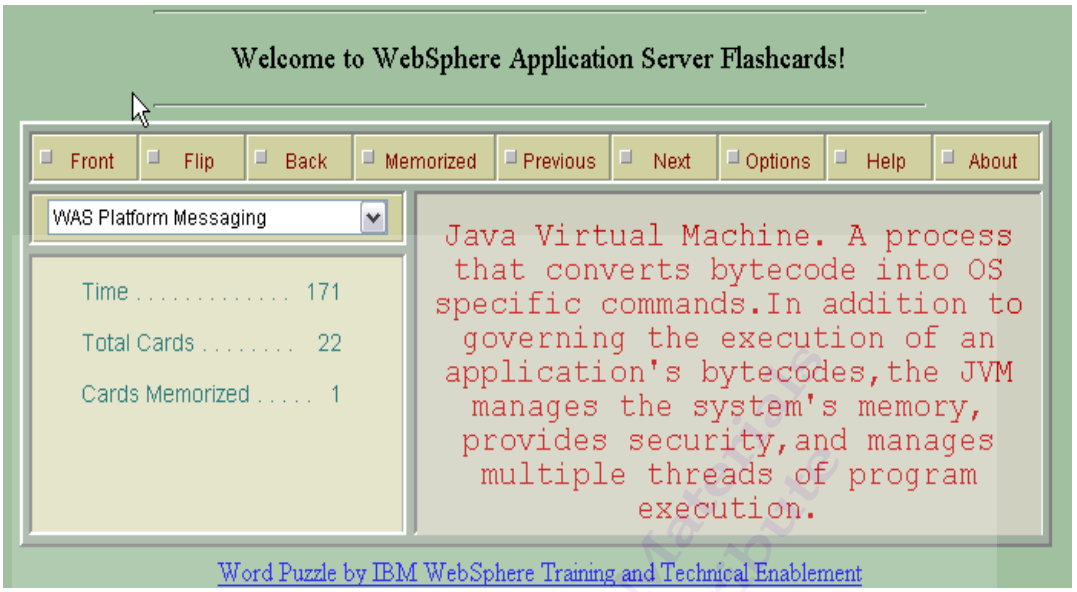
__ e. Press **OK**.

__ 2. Navigate to **C:\Student Files\Games\Flashcards** and double-click **Flashcard games.html**.

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Your Web browser will open and launch the flashcard Java applet.


Welcome to WebSphere Application Server Flashcards!
Front
Flip
Back
Memorized
Previous
Next
Options
Help
About
WAS Platform Messaging
Time 171
Total Cards 22
Cards Memorized 1
Java Virtual Machine. A process that converts bytecode into OS specific commands.In addition to governing the execution of an application's bytecodes,the JVM manages the system's memory, provides security,and manages multiple threads of program execution.
Word Puzzle by IBM WebSphere Training and Technical Enablement

__ 3. If you see a term definition, try to figure out what the term is. Likewise, if you see a term, think about what the definition is.

__ 4. To check your answer, click **Flip** to see the other side of the flashcard.

__ 5. Click **Front** to see the front side of the flashcard.

__ 6. Click **Back** to see the back side of the flashcard.

__ 7. Click **Next** and **Previous** to navigate through all the terms.

__ 8. When you have memorized a term and its definition, click **Memorized**. This will cause the term not to show up anymore and makes your **Cards Memorized** counter increase by one. Try running through the flashcards a few times before determining whether a term is memorized or not.

Part 11: Review questions

Your instructor will review the following questions with you.

__ 1. What is the definition of business item?

_____

__ 2. What is the advantage of using the Quickstart wizard in Modeler?

_____

__ 3. What is the difference between a workspace and a project?

_____

__ 4. Name some of the analyses you can conduct using the Modeler.

_____

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__ 5. Name some of the basic elements you use in your process model.

_____

END OF EXERCISE

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Exercise 4. Adding definitions and structures

What this exercise is about

This lab will provide hands-on experience in creating a process using WebSphere Business Modeler. In this exercise, you will continue to build the business process model called Fill Staff Request.

What you should be able to do

At the end of the lab, you should be able to:

- Add more elements to the process diagram
- Associate business item and connecting process elements
- Add a repository
- Convert local to global elements

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Exercise instructions

You have just created a simple process model called Fill Staff Request from the previous lab exercise. In this exercise, you will expand the process to include more tasks, processes, and information.

Business scenario:

When the project manager from Big Apple receives a service request from a customer, it will go through the following procedure:

1. The project manager and the project executive review the staff request and log the staff request for tracking purposes.
2. The resource manager will identify the qualified resources (consultants or technicians) based on skills and experience.
3. Check the availability of the resources (consultants or technician).
4. If available, the project manager will create a work assignment and assign the staff to the staff request.
5. If not available, the project manager will contact the business partner to fill the request.
6. If the business partner is not able to fill the request, then the project manager will contact the customer to find out if they can wait for resources to be come available.
7. If the customer can wait, then the project manager will schedule the work for a future assignment.
8. If customer cannot wait, then the project manager will contact the business partner to see if resources are available to fill the request.
9. If there is no resource available from business partner, the staff request will be escalated to the project executive to resolve the issue.
10. When resources become available, the project manager assistant will send the assignment notification to the staff.

This lab walks you through the creation of a business process model.

Part 1: Opening workspace

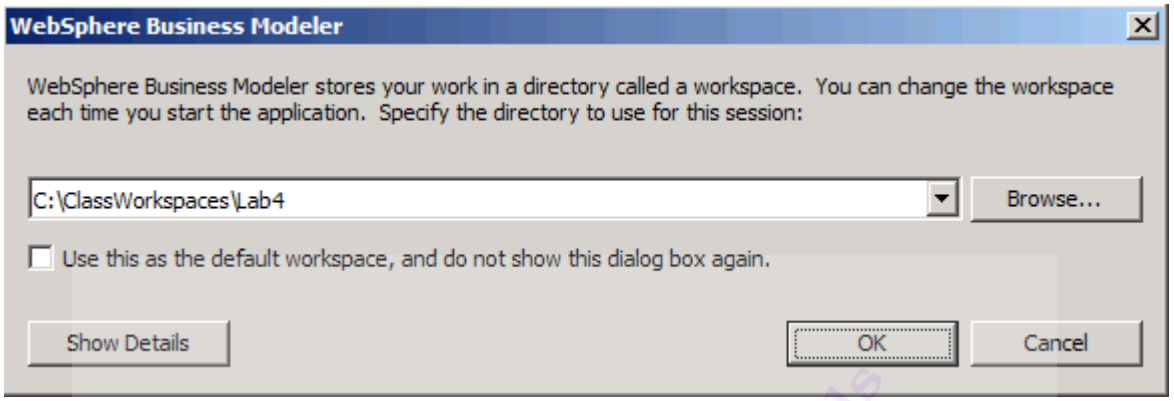
__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

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__ 2. Browse to **C:\ClassWorkspaces\Lab4** and click **OK**.


WebSphere Business Modeler
WebSphere Business Modeler stores your work in a directory called a workspace. You can change the workspace each time you start the application. Specify the directory to use for this session:
C:\ClassWorkspaces\Lab4
Browse...
Use this as the default workspace, and do not show this dialog box again.
Show Details
OK
Cancel

Part 2: Adding more elements to the process diagram

The Staffing Project in the Project Tree has been created for you based on the information from the previous lab exercise, you will build upon your process diagram based on the business scenario. You will add more elements to the process.

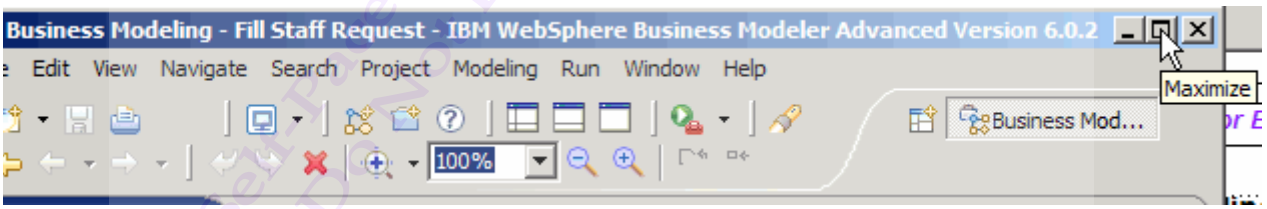
__ 1. Expand **Staffing Project** from the Project Tree and double-click the **Process Catalog** from the Project Tree.

__ 2. Double-click the **Fill Staff Request** under the **Process Catalog**.

__ 3. Switch to 2-pane layout by clicking the **Apply 2-pane layout** button from the toolbar so that you have more space to work with the diagram.

Note

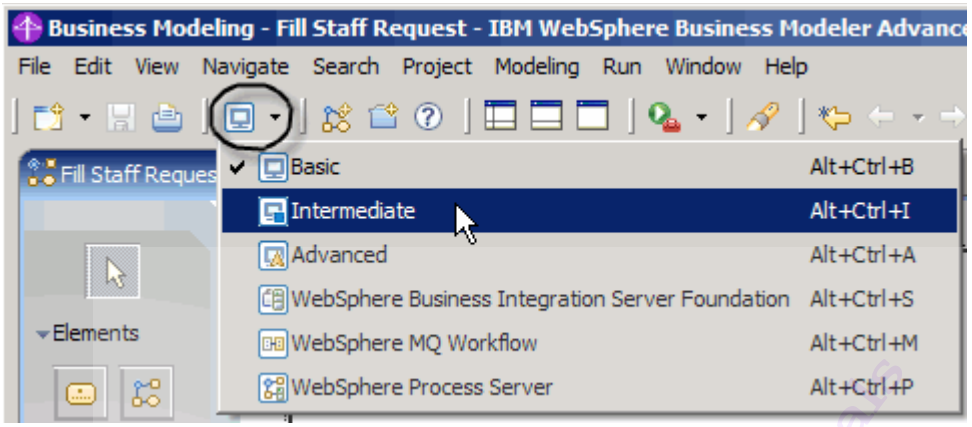
Click the Maximize button to maximize the Modeler window, and you will find it much easier to navigate, to view and to work with your diagram.


Business Modeling - Fill Staff Request - IBM WebSphere Business Modeler Advanced Version 6.0.2
Edit View Navigate Search Project Modeling Run Window Help
Maximize
Business Mod...
100%

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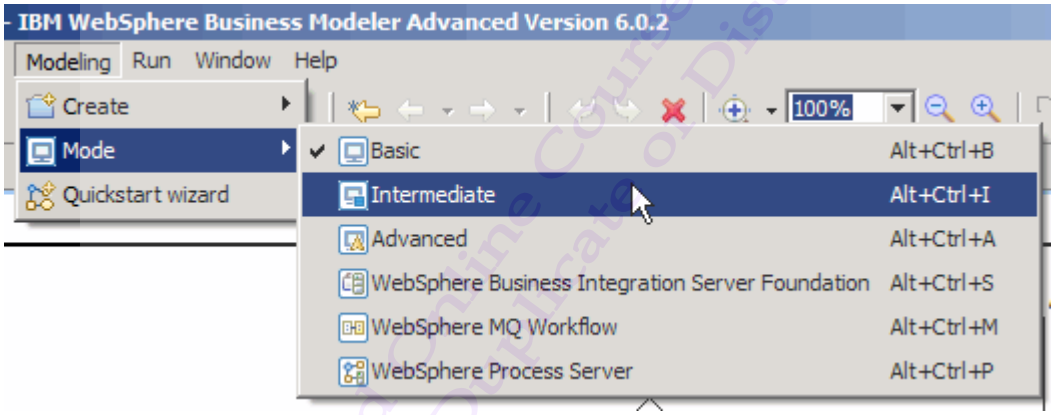
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__ 4. Click the **Mode** button to select the Intermediate mode.

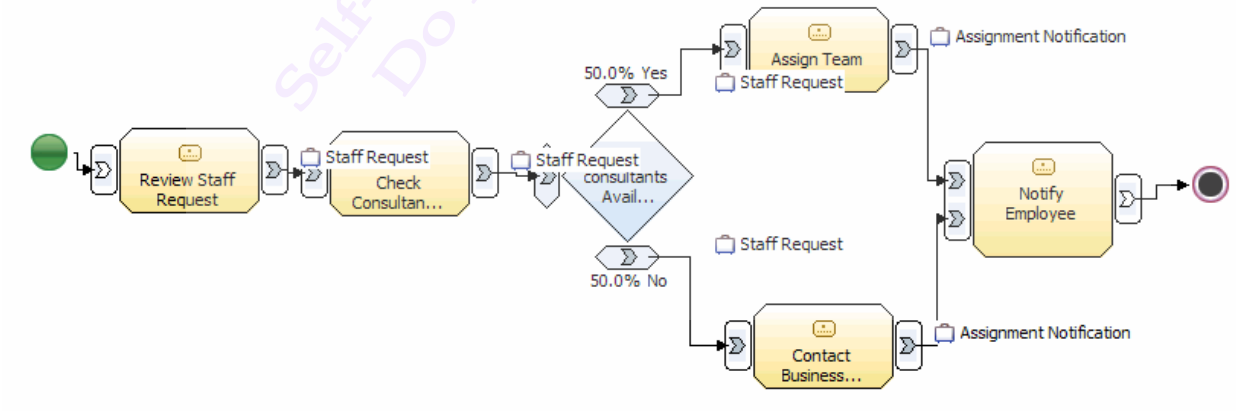

Business Modeling - Fill Staff Request - IBM WebSphere Business Modeler Advanc
File Edit View Navigate Search Project Modeling Run Window Help
Fill Staff Reques
Elements
Basic Alt+Ctrl+B
Intermediate Alt+Ctrl+I
Advanced Alt+Ctrl+A
WebSphere Business Integration Server Foundation Alt+Ctrl+S
WebSphere MQ Workflow Alt+Ctrl+M
WebSphere Process Server Alt+Ctrl+P

Note

You can also select a different mode from the menu bar by clicking the **Modeling —> Mode**.



The process diagram will be displayed as follows:



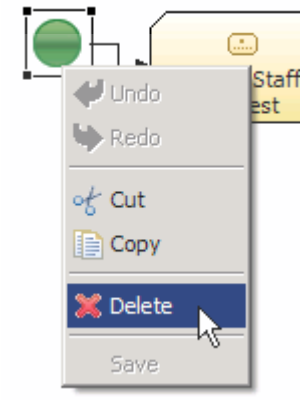
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__ 5. From the process editor of **Fill Staff Request**, remove the **start** node (green circle) from the diagram by selecting it and pressing the *Delete* key on your keyboard.

Note

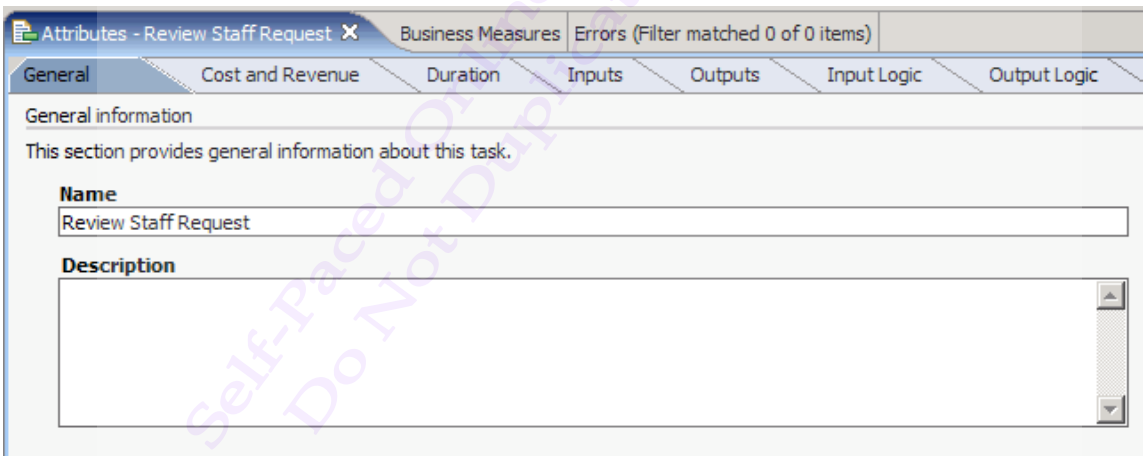
You can also select the **start** node and right-click to delete.



You will need to update the description fields for each of the existing tasks.

__ 6. Select the **Review Staff Request** task.

__ 7. Select the **General** tab from the **Attributes** pane.



__ 8. Enter the following text in the description field.

"Review the staff request and identify the qualified resources (consultants or technician) based on skills and experience."

The description fields for the other tasks are already entered for you.

With the business scenario, there will be new tasks and elements being added to the process diagram.

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In this process model, there will be incoming data, which is the service request, to start the process; therefore, it is not necessary to have a start node in the diagram. There will be a stop node at the end of the process, depending on the output paths.

__ 9. Drag a new local **task**  from the palette in the process editor onto the diagram.



Note

You can also right-click in the diagram and select **New —> Local Task.**

The **Attributes view** now focuses on your newly created task.



Note

If the **Attributes view** pane is not displayed, make sure you are in either a 2-pane or 4-pane view.

__ 10. Label the task **Contact Customer.**



Note

To change the name of the task, simply select it, single-click the name, and it will allow you to edit the text.

You can create multiple tasks by left-clicking while holding down the Shift key.

__ 11. Add the following four tasks to the diagram:

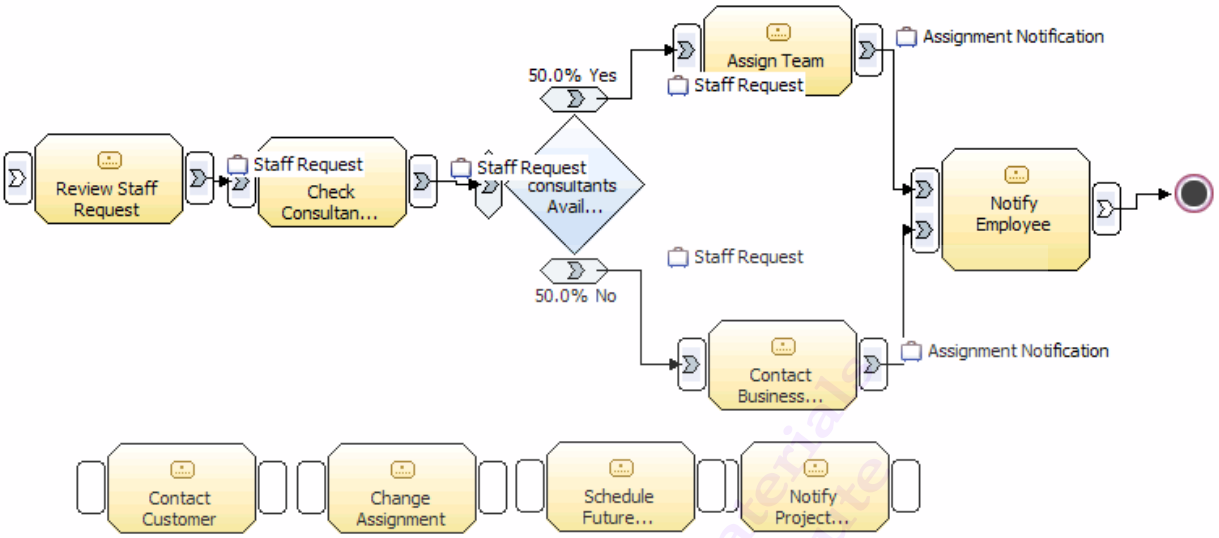
- Change assignment
- Schedule Future Assignment
- Notify Project Executive

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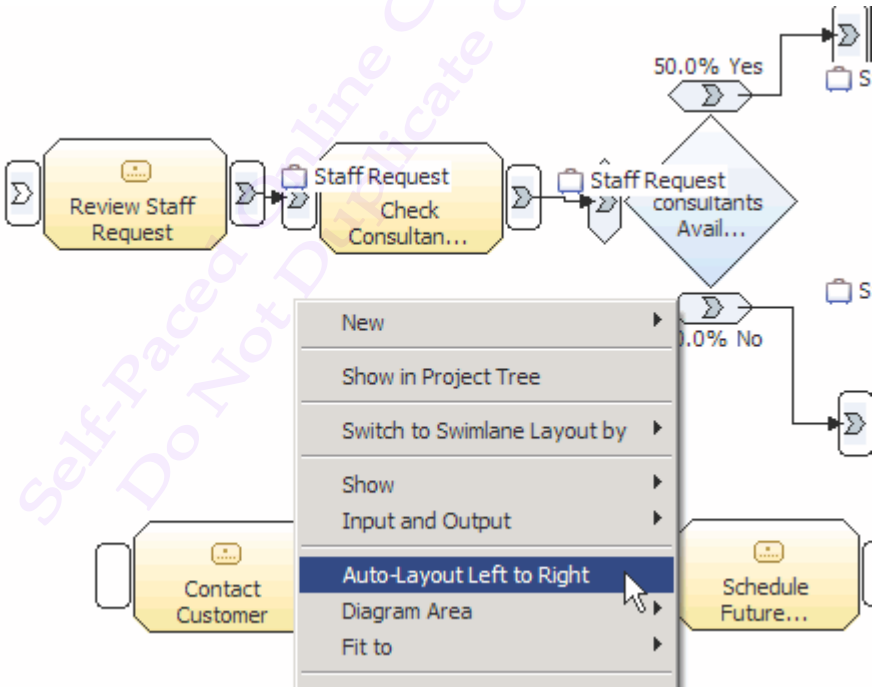
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The diagram should now have the following tasks:



Now you have additional tasks in your process that you will need to rearrange them, so you will now delete all the connections on the diagram.

__ 12. Right-click anywhere in the background of the diagram, and select **Auto-Layout Left to Right**.

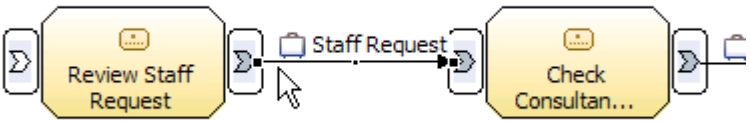


__ 13. Save the process (Ctrl+S).

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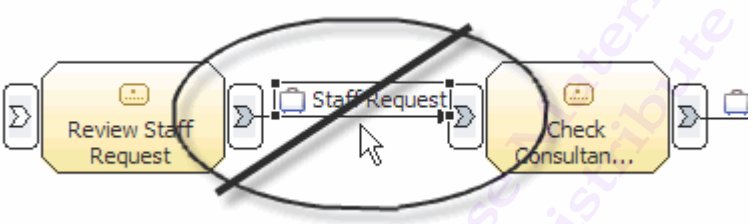
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__ 14. While holding down the **Ctrl** key, use the mouse to single-click each connection on the diagram until all the connections are selected.

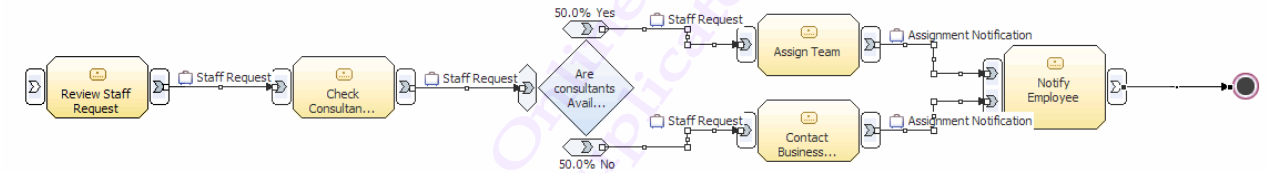


Note

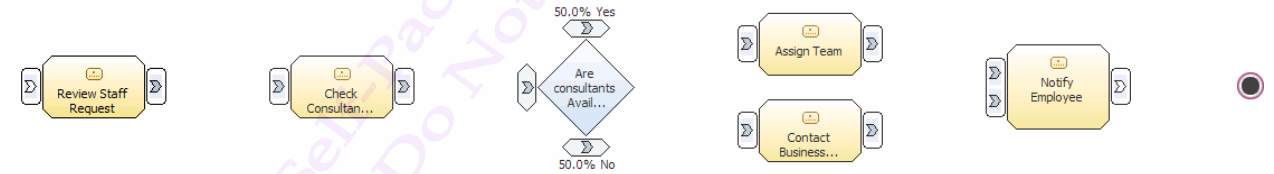
You should select the connection, not the business item or data.



Now all the connections are selected as follows:



__ 15. Press the **Delete** key to delete all the connections.

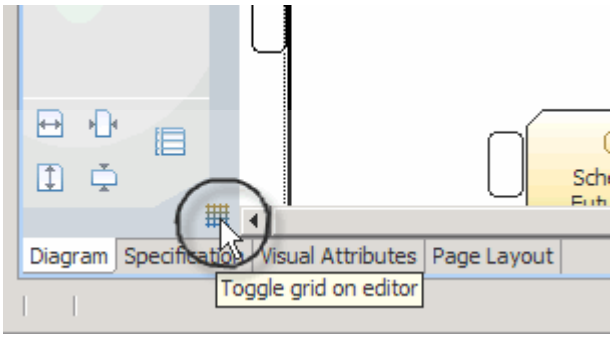


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Note

You can click the **Toggle grid on editor** button to show gridline on the editor to help you align the objects.



__ 16. Add two simple **decision** objects to the diagram.

__ a. Label first decision as **BP Resource Available?**

__ b. Label second decision as **Can Customer Wait?**

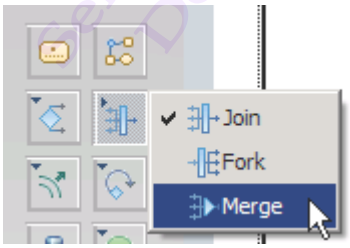
Now you should have two additional **decision** objects on your diagram.

__ 17. Add two **merge** objects to the diagram.

__ a. Click the **Create Join** button from the process editor.



__ b. Select **Merge**.



__ c. Place the **merge** onto the diagram.

__ d. Right-click the **merge** object and Select **Copy**.

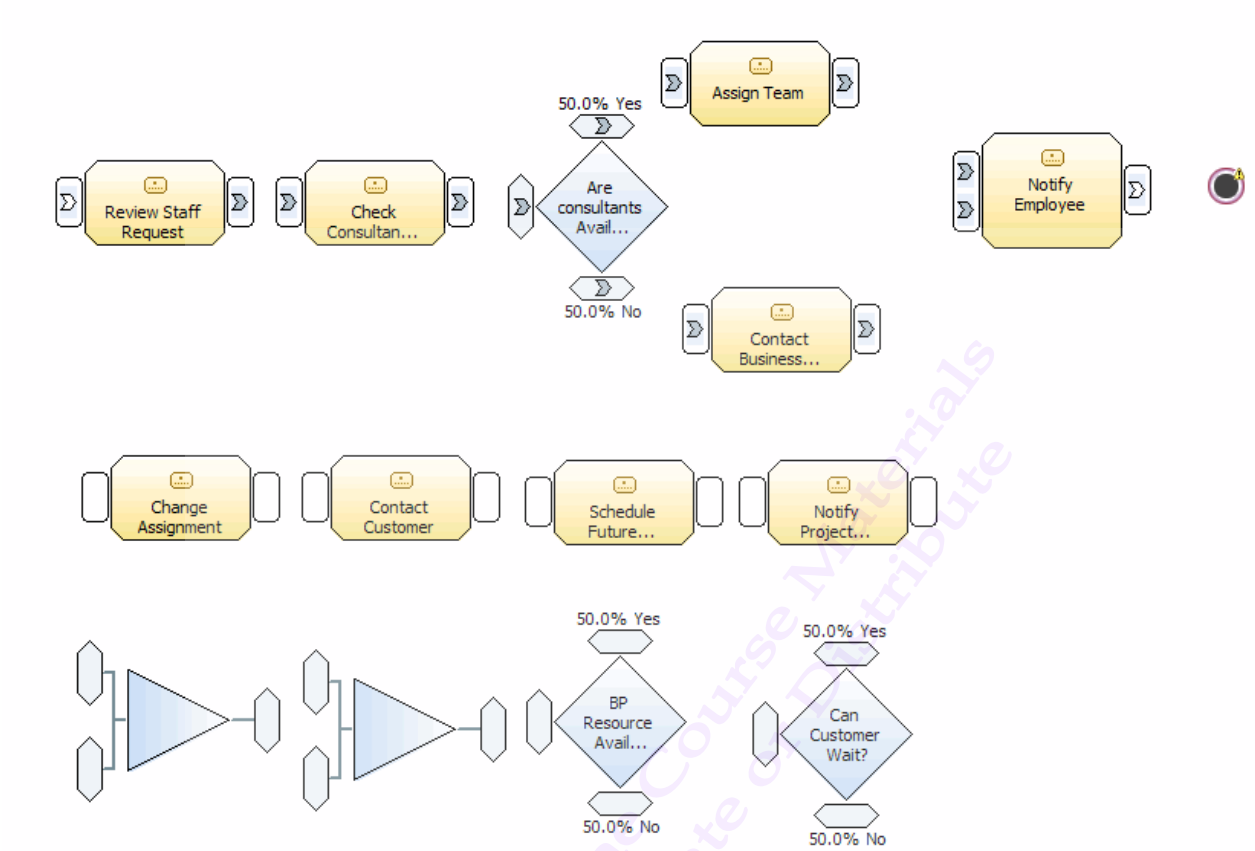
__ e. Right-click again to select **Paste**.

Now you should have two merge objects on your diagram.

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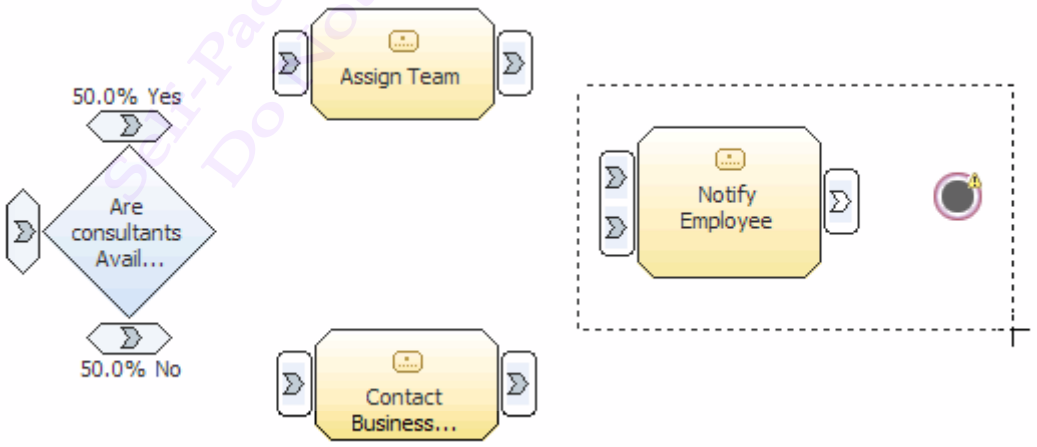
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Your diagram should look as follows:



__ 18. You will need to rearrange all the objects in the diagram in order to leave space for moving objects around.

__ a. Use the left mouse button to select the area.

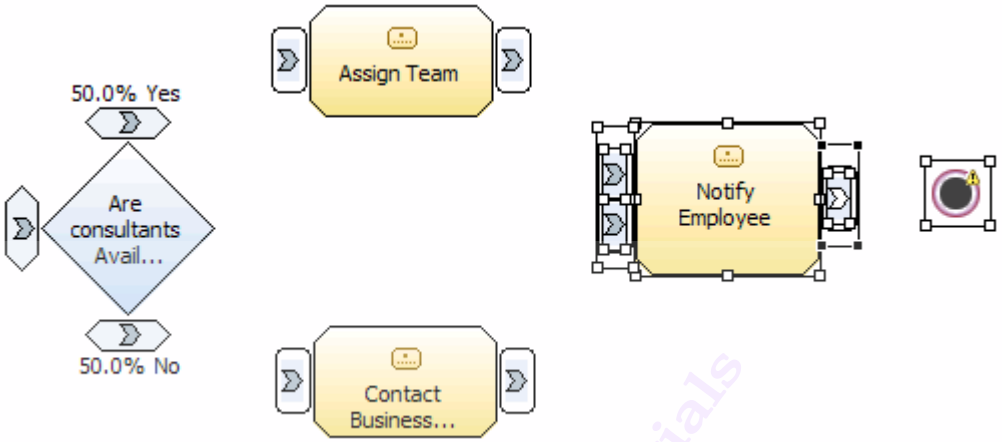


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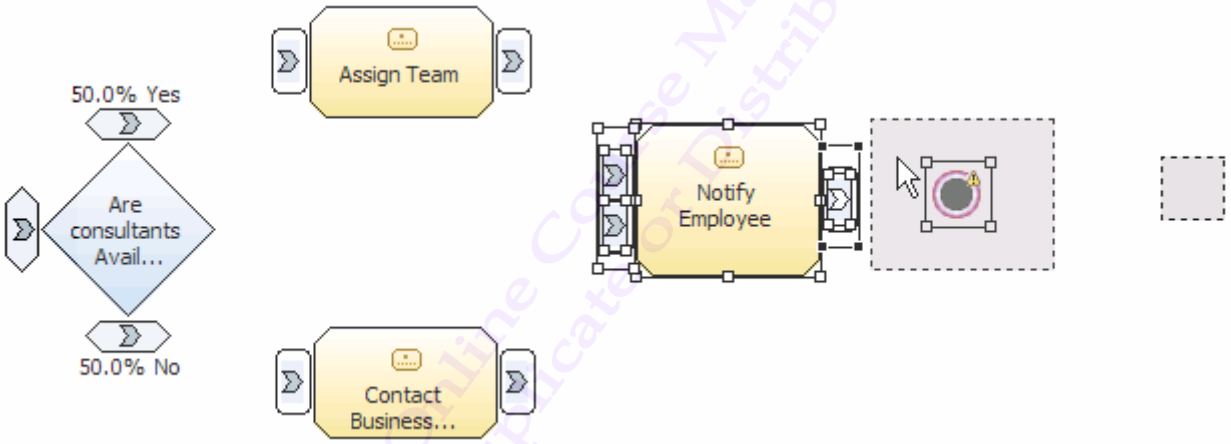
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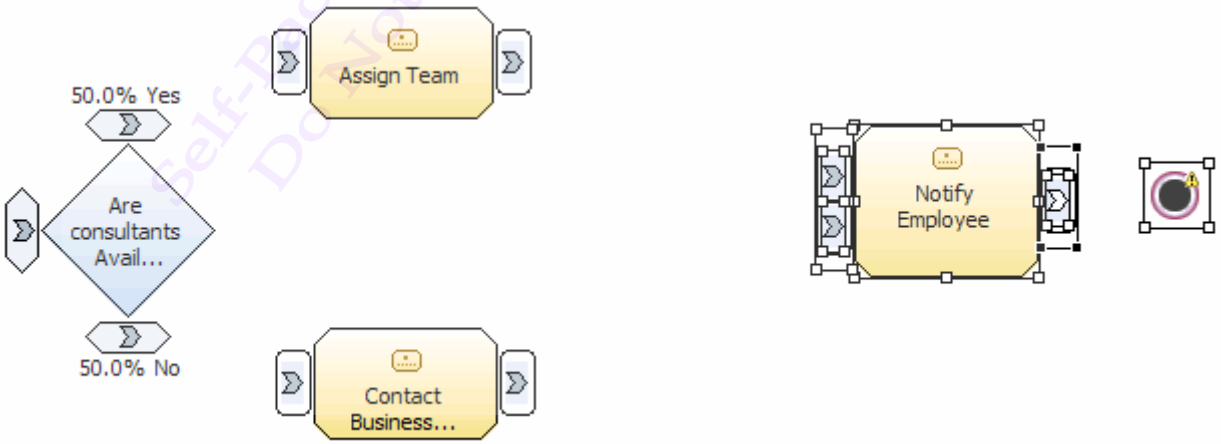
The selected objects are now highlighted.



__ b. Use the mouse again to drag the highlighted area to the right.



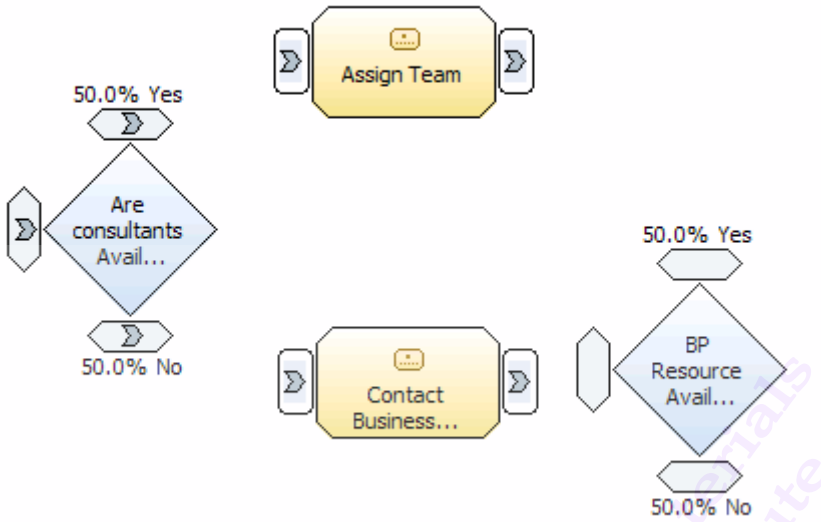
Now you have created space between objects.



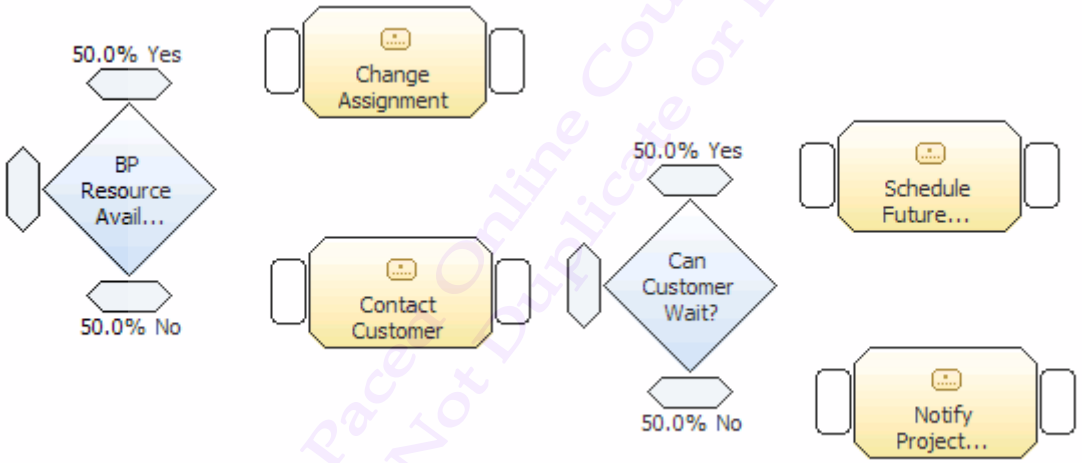
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__ 19. Place the **BP Resource Available?** decision next to **Contact Business Partner.**



__ 20. Place the **Change Assignment**, **Contact Customer**, and **Can Customer Wait?** in the diagram as follows:

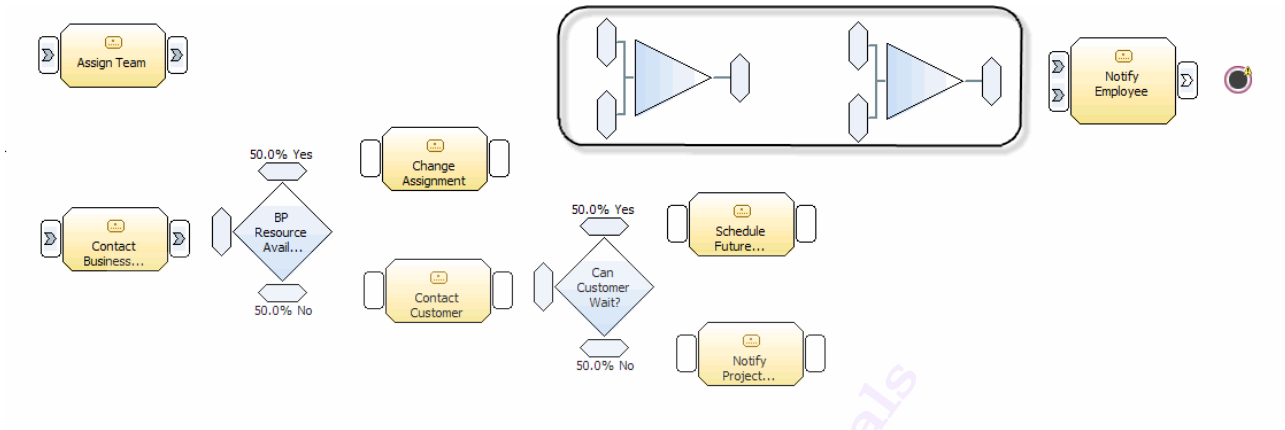


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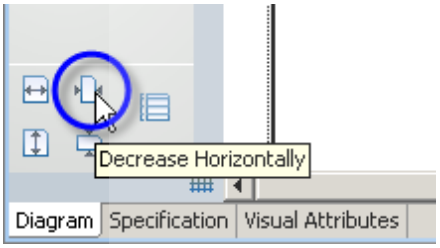
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__ 21. Finally, place the two **merges** in the diagram as follows:



Note

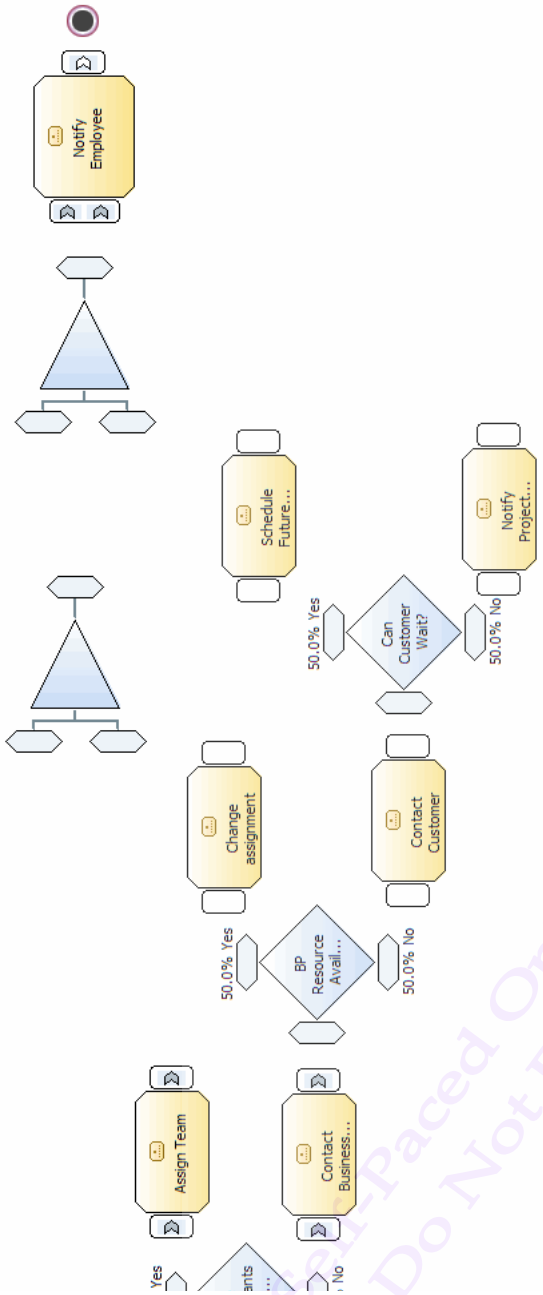
Eliminate the extra space on your process diagram: click the **Decrease Horizontally** button from the process editor. You may need to click more than once until the horizontal size of the diagram can no longer be reduced.



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__ 22. Move and rearrange all the new objects that you just created as follows:



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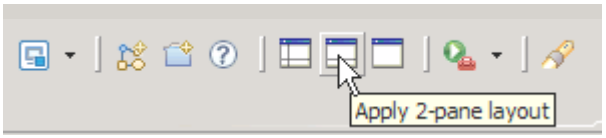
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__ 23. Save the process (Ctrl+S).

Part 3: Associating business item and connecting process elements

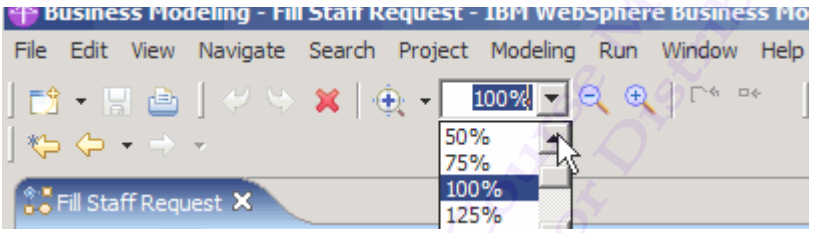
You will now add some more technical details to the process model.

__ 1. Click the **Apply 2-pane layout** button from the toolbar so that you can work with the diagram in the process editor and attributes pane.

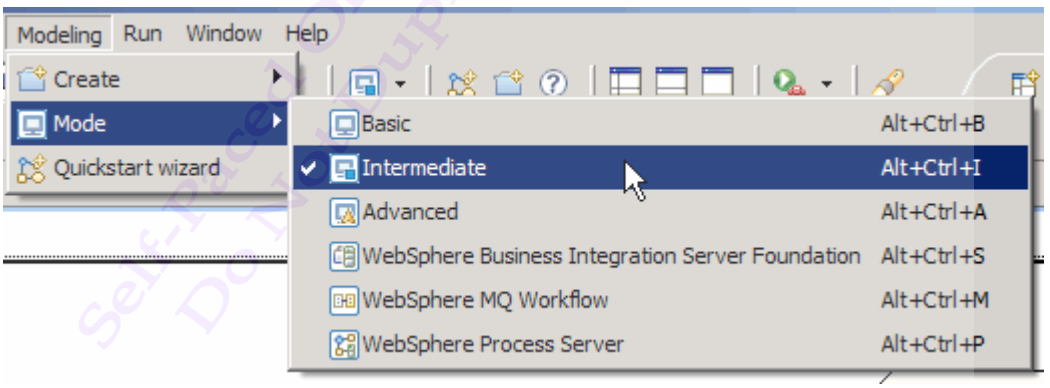


Note

You can zoom in and out of the process diagram by selecting a value from the drop-down menu of the toolbar.



__ 2. Make sure that the modeling mode is set to **Intermediate** by clicking the **Select a mode** button from the main toolbar and selecting **Intermediate**.



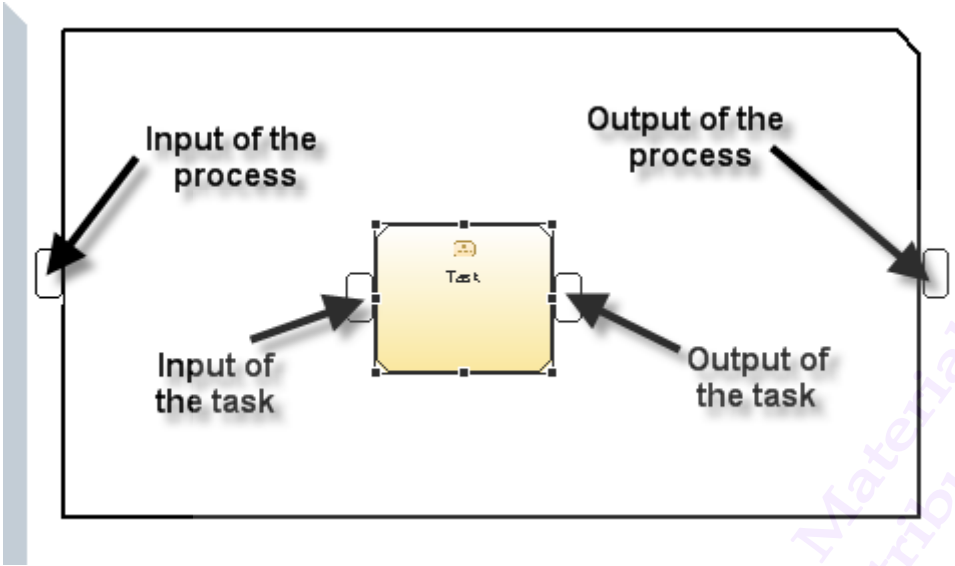
This mode allows the more technically focused user to specify and view additional details of process and data models. For example, it allows you to specify business rules and logic that apply to model elements, and a broader set of specifications for data attributes.

You will see two new small empty icons on both the left and right sides of each element in the process diagram, as well as outside the diagram boundary. These are the inputs and outputs defined for each task and for the process. These icons do not appear if you are in the Basic mode. Note that there are boxes outside of the diagram boundary (left and right

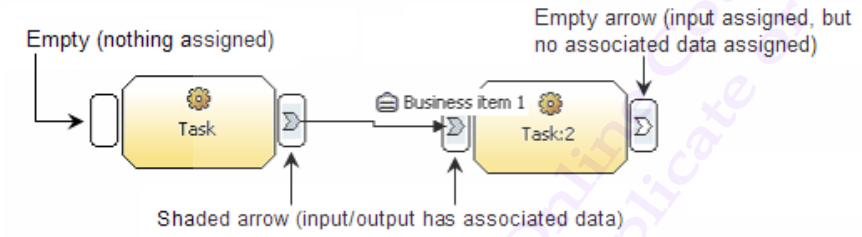
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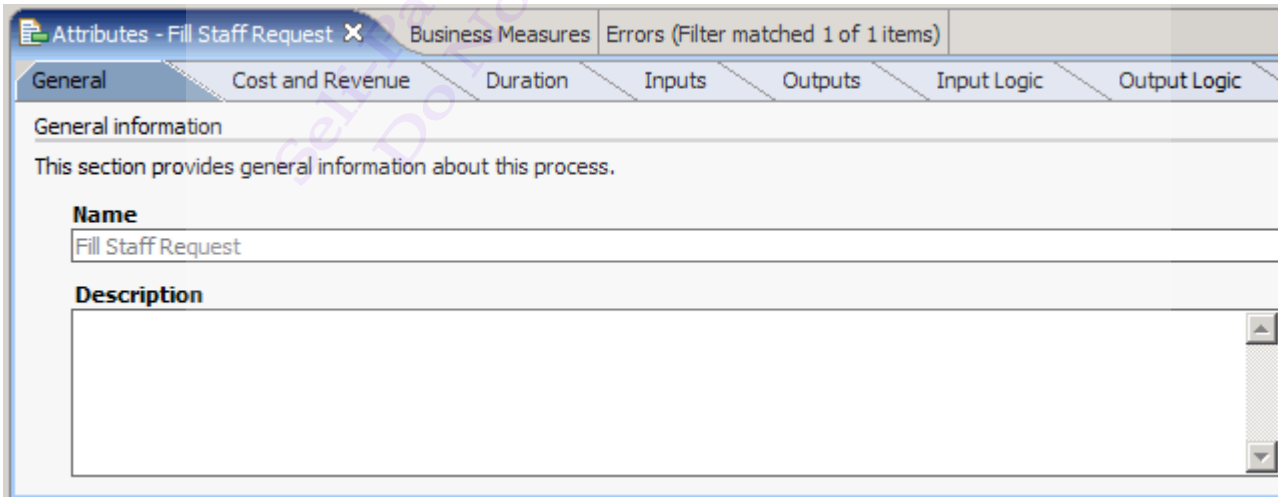
side). In this process model, there will be incoming data (input) to start the process and data flowing out of the process (output) when it is completed.



The arrows inside the boxes indicates that there are data defined for input or output, and they are sometimes displayed differently, depending on their settings:

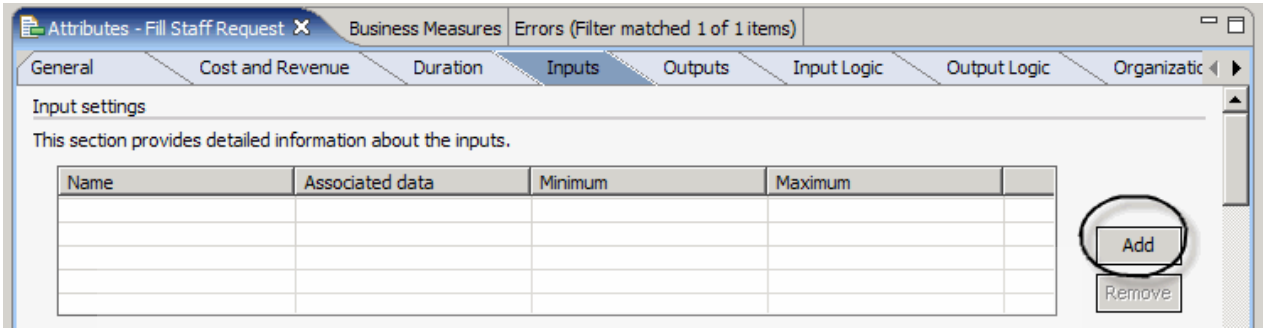


__ 3. Click the process diagram background, and notice that the **Attributes view** now focuses on the process itself. This focus is on the attributes view of the Fill Staff Request process.



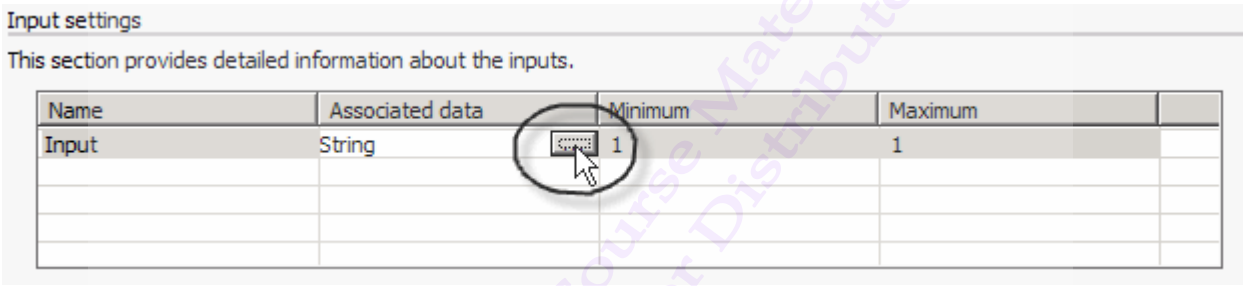
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__ 4. In the **Attributes** pane, select the **Inputs** tab and click the **Add** button.



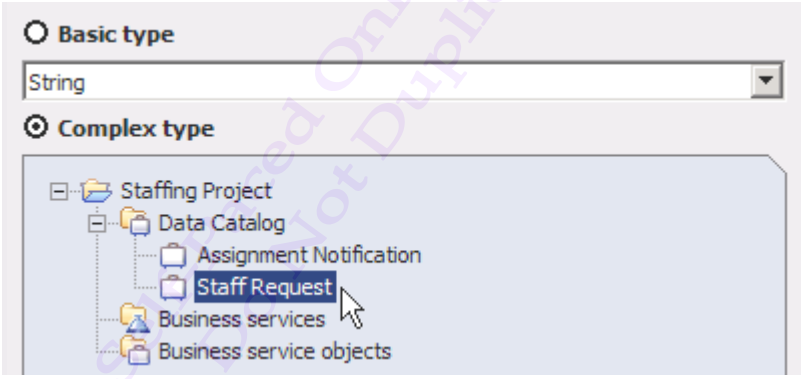
A new row is created in the **Input Settings** table.

__ 5. Under **Input Settings**, in the **Associated Data** column, double-click `String,` and click the small box that appears to the right of the field.



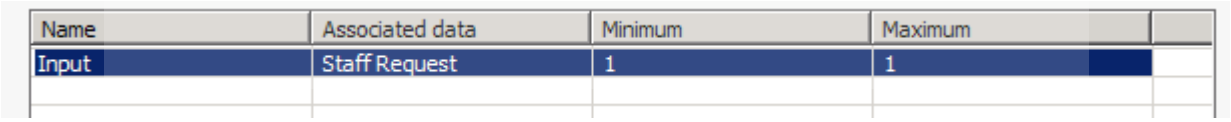
A dialog box is displayed.

__ 6. Select the **Complex type** radio button and select **Staff Request** under **Staffing Project —> Data Catalog**.



__ 7. Click **OK**.

Staff Request is now associated as an input for the **Fill Staff Request** process.



__ 8. Click the **Outputs** tab.

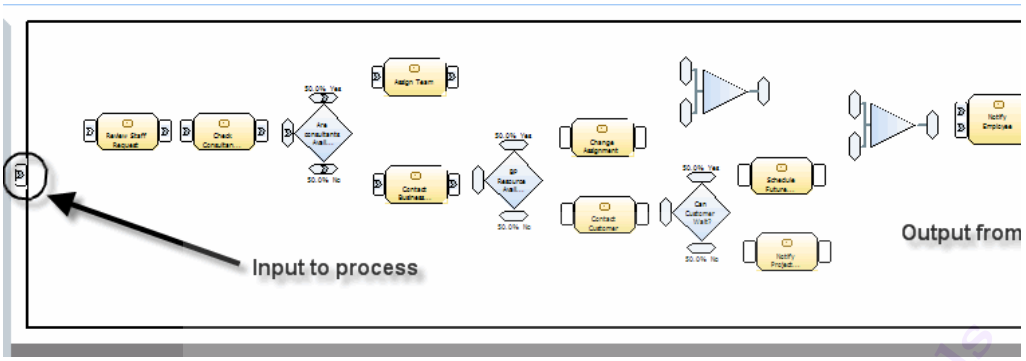
__ 9. Click the **Add** button.

__ 10. Select **Assignment Notification** as an associated data.

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You should see the input and output of the **Fill Staff Request** process in the diagram as shown below:

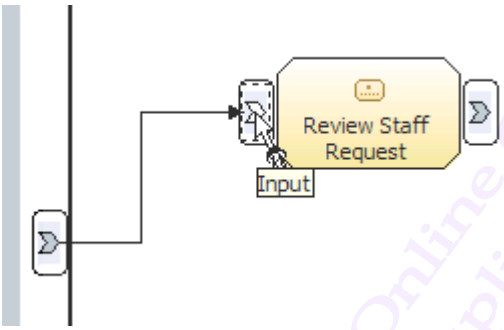


__ 11. Connect the process **Input (Staff Request)** to the input of the **Review Staff Request** task.

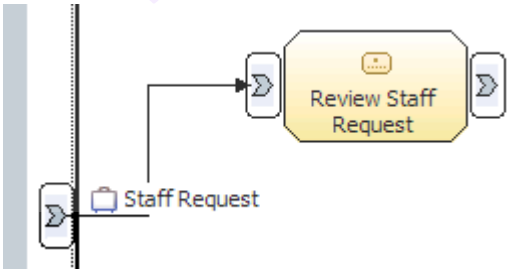
__ a. To do this, first select the **Connector** icon from the palette.

__ b. Click the input icon outside the black boundary line (see below).

__ c. Drag the connector to the **Input** (left arrow) of the **Review Staff Request**.



An input, associated with Staff Request, was automatically created for the Review Staff Request task. The connection between the Process Input and the Review Staff Request task now has the Staff Request data association.



__ 12. The output for **Contact Business Partner** needs to be changed to **Staff Request**, instead of **Assignment Notification**.

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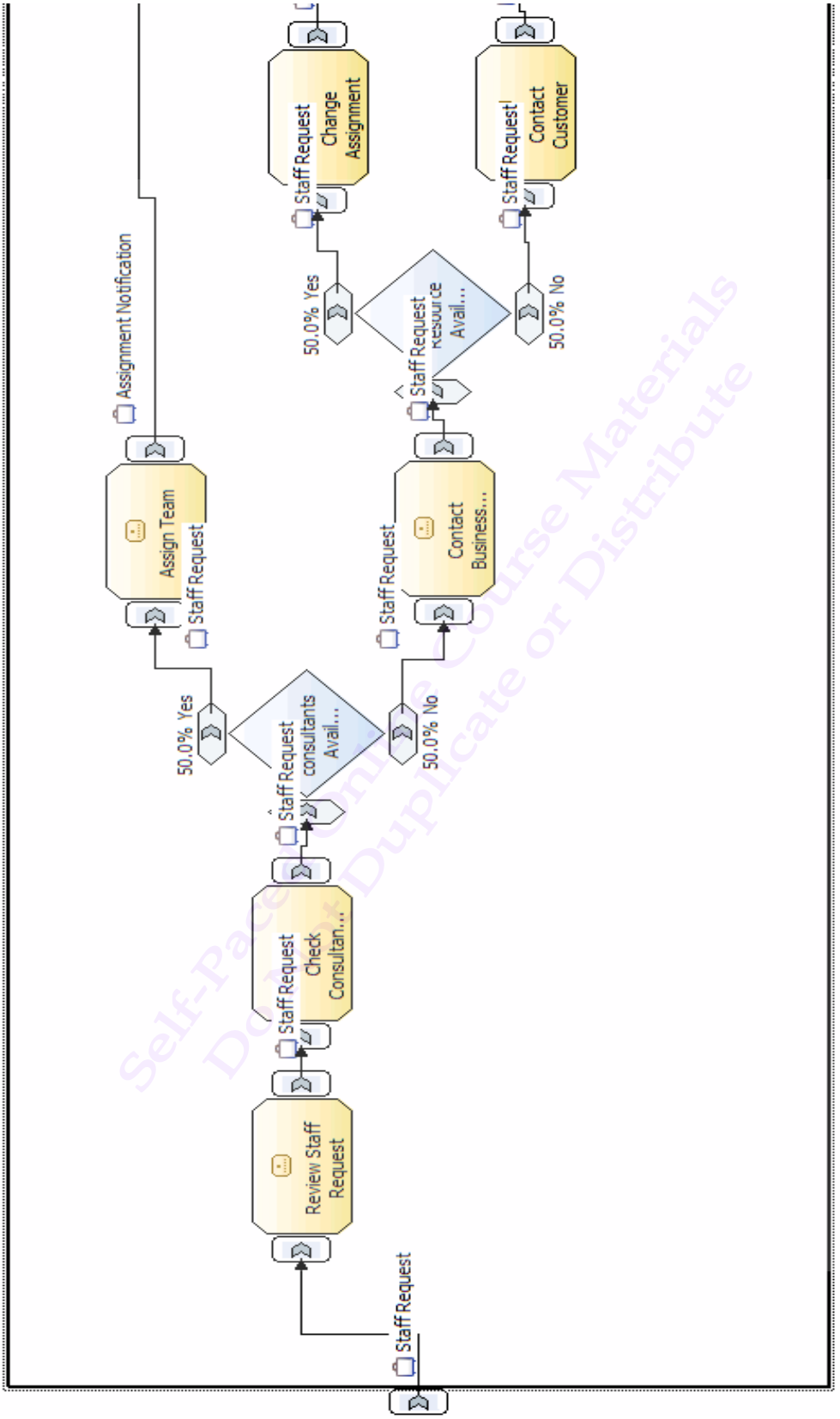
__ 13. Since the diagram has changed and some of the tasks have not yet defined their input and output, repeat the previous steps to add and associate the input and output.

Action	Task	Input	Output
Add	Contact Customer	Staff Request	Staff Request
Add	Change Assignment	Staff Request	Assignment Notification
Add	Schedule Future Assignment	Staff Request	Assignment Notification
Add	Notify Project Executive	Staff Request	No Output

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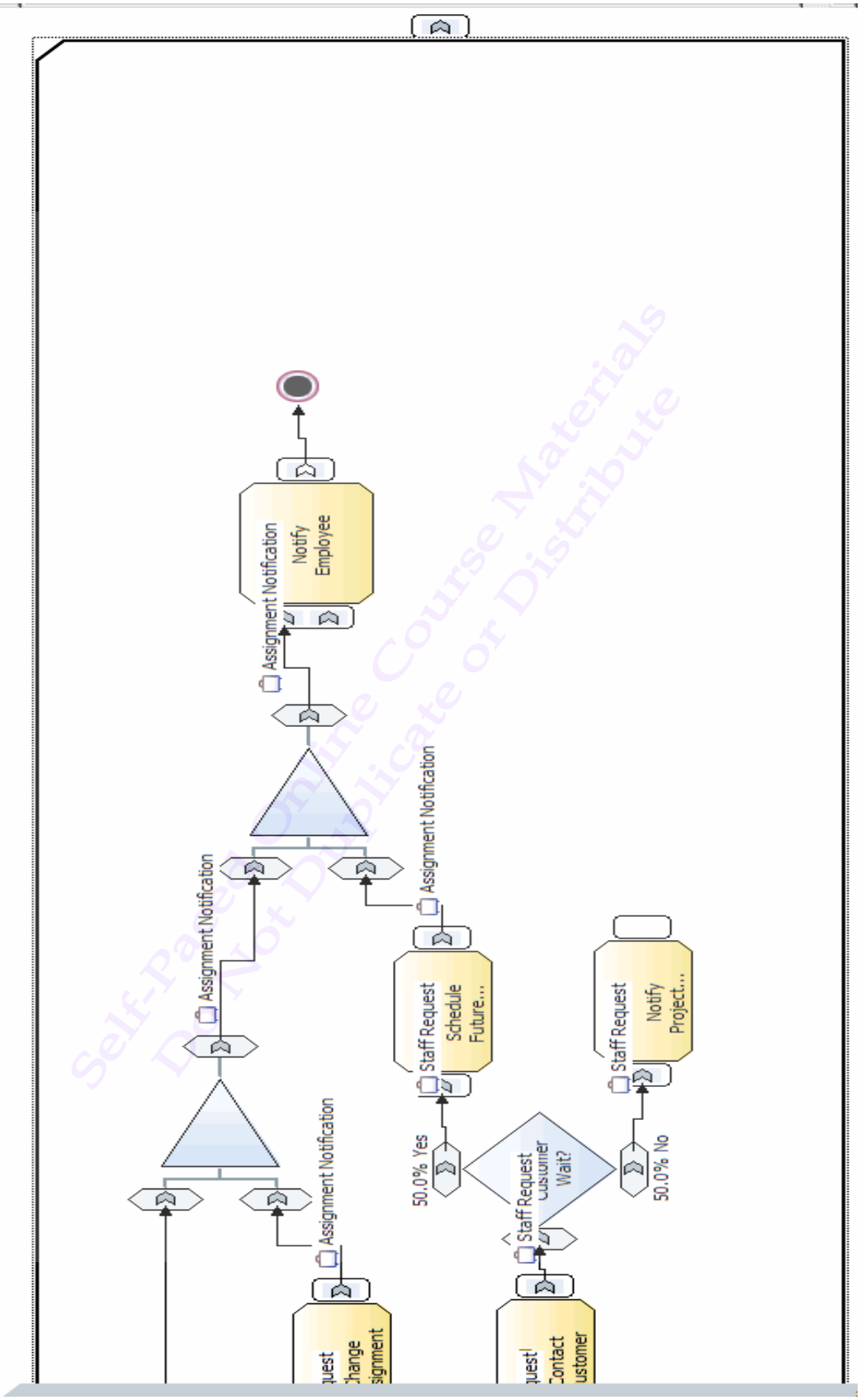
__ 14. Once you defined all the input and output, you can connect the all the process elements as follows:



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__ 15. Continue:



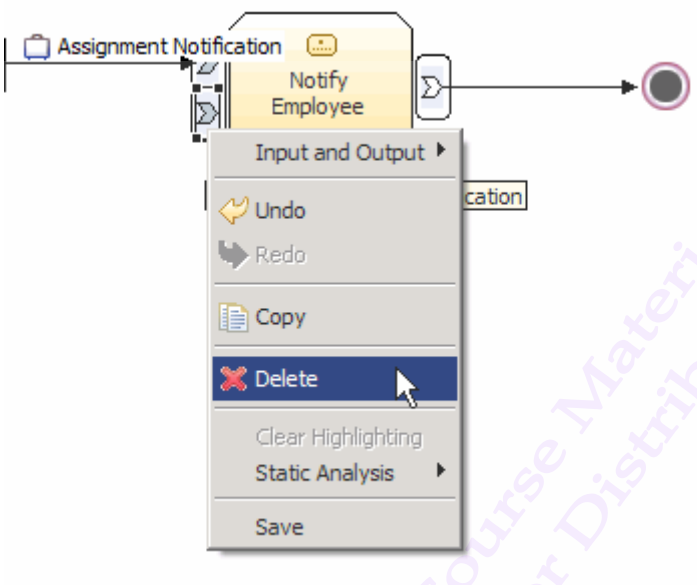
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__ 16. Press Ctrl+S to save the diagram.

The **Notify Employee** task has two inputs because a merge was not used when it was created in the previous exercise, so you will correct this by deleting the extra input which does not have a connection.

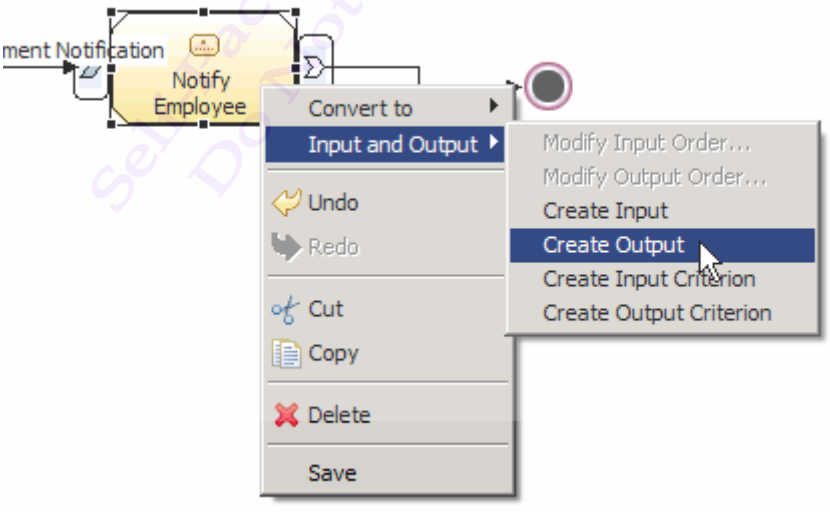
__ 17. Right-click the input (below) and select **Delete**.



__ 18. The **Notify Employee** task not only was the last task of the Fill Staff Request process, but also will pass the Assignment Notification as an output of this process; so you will add an extra output. This output will associate with Assignment Notification and connect to the output of the process.

__ a. Select the **Notify Employee**.

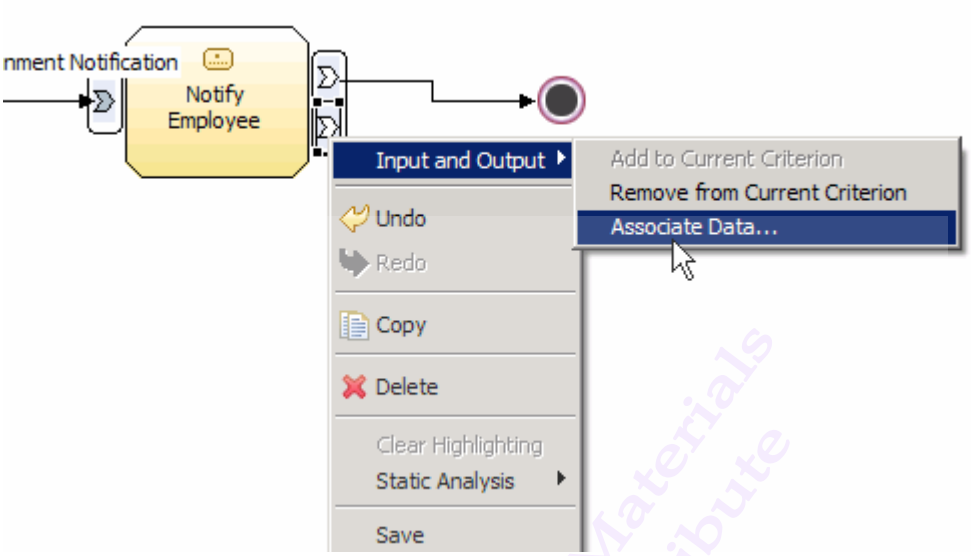
__ b. Right-click to select **Input and Output —> Create output**.



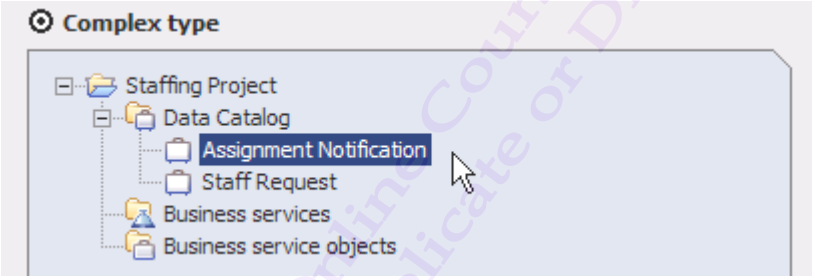
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__ c. Right-click the output you just created, and select **Input and Output —> Associate Data**.

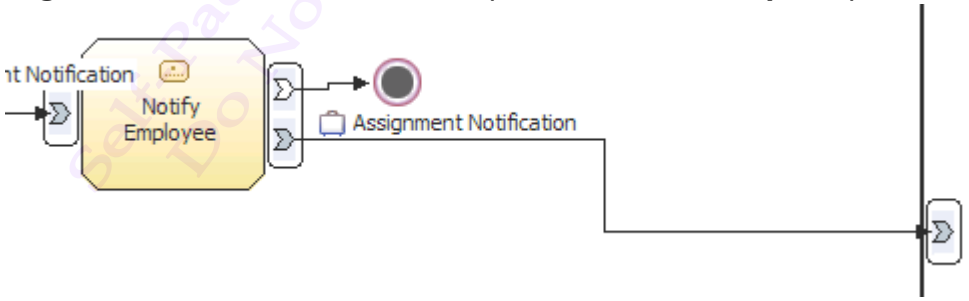


__ d. Select the **Complex type** radio button and select **Assignment Notification** under **Staffing Project —> Data Catalog**.



__ e. Click **OK**.

__ 19. Now you can connect the non-empty output, which has the association of **Assignment Notification**, to the output of **Fill Staff Request** process.



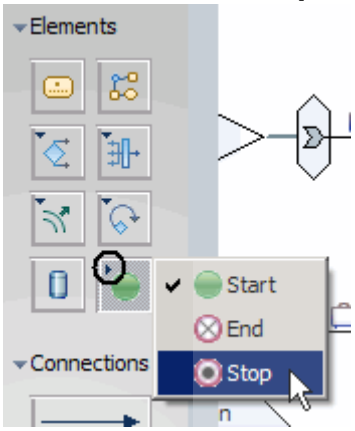
__ 20. You will need to add another stop node next to the **Notify Project Executive** task to indicate this is end of the path, and there is no output being passed to the output of the process.

__ a. Click the **Create Stop** button from the palette.

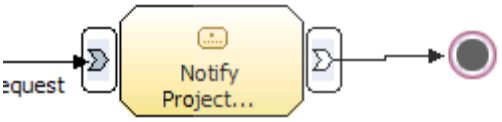
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__ b. Select **Stop**.



__ c. Place the **Stop** next to the **Contact Project Executive** task.



__ 21. Right-click anywhere in the background of the diagram, and select **Auto-Layout Left to Right**.

__ 22. Save your work (**Ctrl+S**).

Part 4: Adding a repository

Repositories are storage areas for the information that is created in a business process. Every repository has a name and an associated type. Usually the name of a repository is the same as the name of the business items it contains. For example, a repository for invoices is called Invoices.

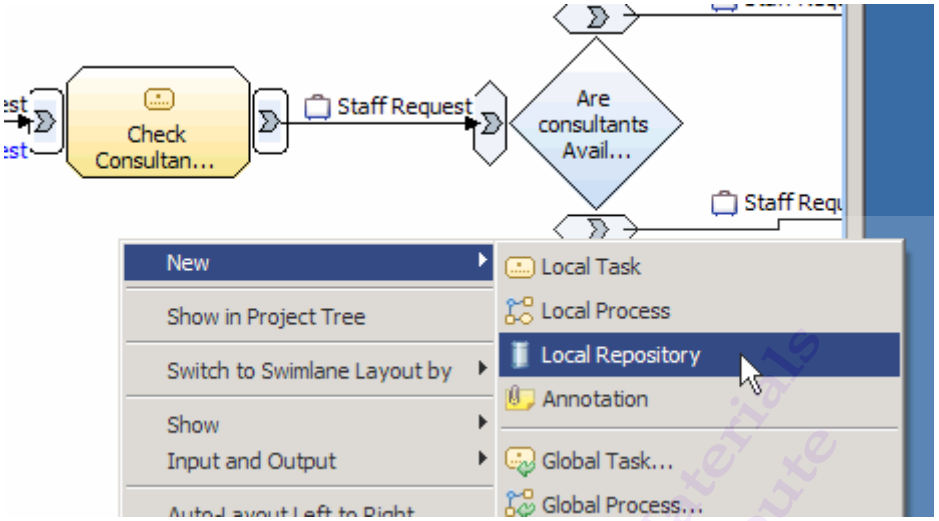
Use repositories when you have several activities (tasks, processes, or services within a process) that need to access or share the same information. Rather than passing information along flows from one activity to another, you can instead place the information in a common place which several activities can then access.

In this case, the assumption is that the staff request database is owned by the Fill Staff Request process and can only be used by elements within this process. You will add a local repository in the diagram to represent the database where the project manager will store the staff request.

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__ 1. Right-click the background of the process diagram, and select **New —> Local Repository**.



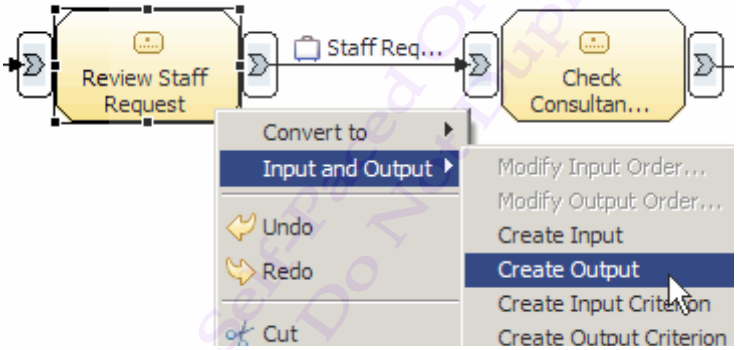
__ 2. Enter **Staff Request DB** as name of the local repository.

__ 3. In the **Attributes** pane, select the **General** tab.

__ 4. Scroll down to Associated data to click the **Browse** button.

__ 5. Select the **Complex type** radio button and select **Staff Request** under **Staffing Project —> Data Catalog**.

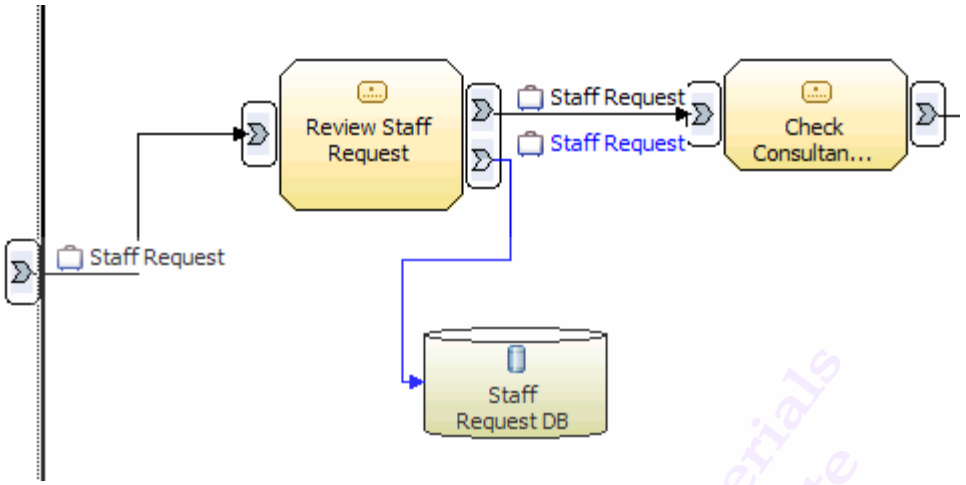
__ 6. Right-click the task **Review Staff Request** and select **Input and Output —> Create Output.** An extra output will be created for the task.



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__ 7. Connect the extra output of **Review Staff Request** task to the **Staff Request DB**.



__ 8. Save your work (Ctrl+S).

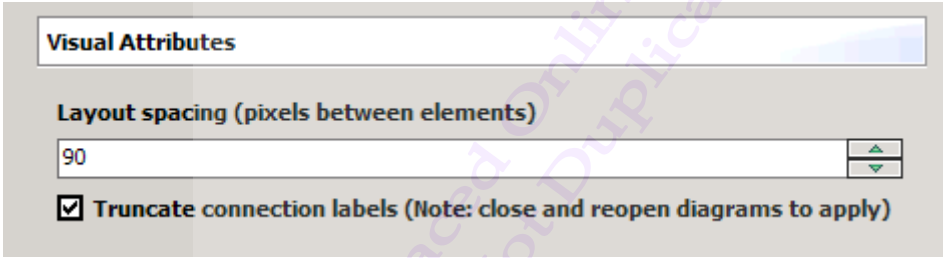
Part 5: Setting visual attributes

__ 1. Click the **Apply 4-pane layout** button from the toolbar.

__ 2. From the menu toolbar, navigate to **Window** —> **Preferences**.

__ 3. Expand **Business Modeling** —> **Process Modeling** and select **Visual Attributes**.

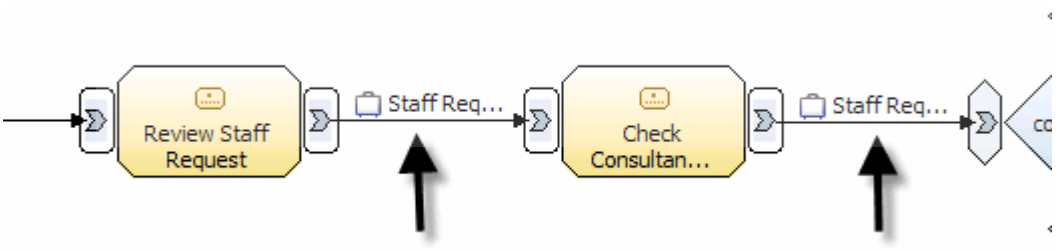
__ 4. Select check box next to **Truncate connection labels**.


Visual Attributes
Layout spacing (pixels between elements)
90
Truncate connection labels (Note: close and reopen diagrams to apply)

__ 5. Click the **Apply** Button.

__ 6. Click **OK**.

__ 7. Close and reopen the **Fill Staff Request** process editor (double-click the process in the Project Tree) to apply the changes.



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Note

Note: If the process editor is unable to display the entire connection label, it truncates the text it cannot display and uses ellipses to indicate that it has truncated the label. You can see the entire label by placing the pointer on the connection. After a brief pause, the full label displays as hover text.

Part 6: Converting local to global elements

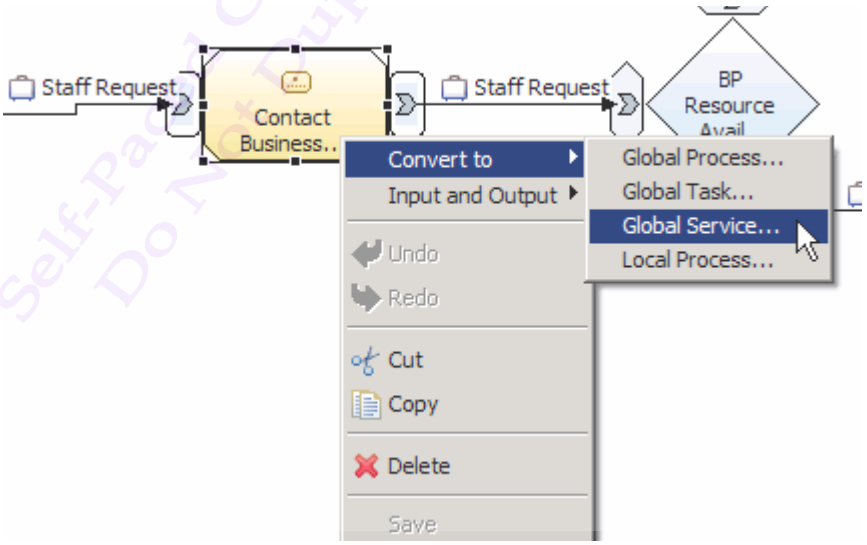
You may decide to use a local task in another process. You can convert the local task to a global task that will appear in the Project Tree view. All the existing attributes and connections will be maintained. Similarly, you can convert a local task to a global process or service.

To convert a local task to a global task, process, or service, you must previously have created a local task in a process diagram, and you must have the process diagram open.

In this case, the following tasks will be converting to global elements:

Convert **Contact Business Partner** from local task to global services. Services are external processes outside the organization that can be used within the organization's processes. Services either provide input to the organization or receive output from the organization. Services have well-defined inputs and outputs, but their internal processes are unknown to the organization and cannot be changed.

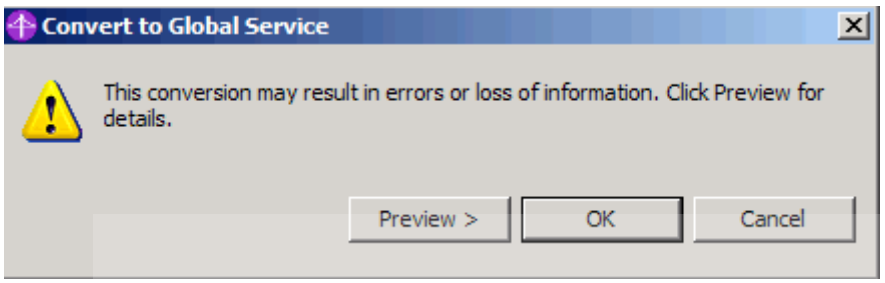
__ 1. Select the **Contact Business Partner** task and right-click to select **Convert to —> Global Service...**.



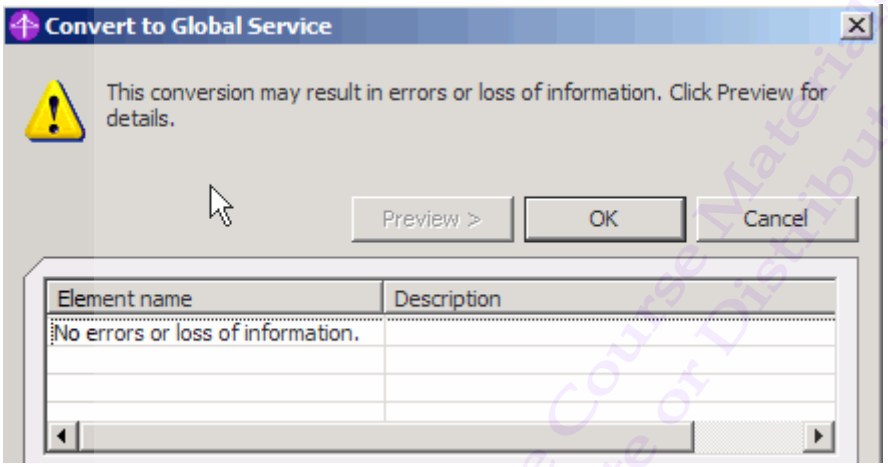
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__ 2. Click the **Preview** button from the **Convert to Global Service** pop-up window to preview the details.


Convert to Global Service
This conversion may result in errors or loss of information. Click Preview for details.
Preview >
OK
Cancel

No errors or loss of information is dispalyed.

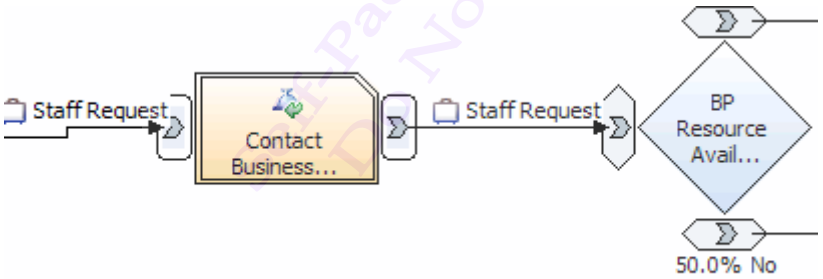


__ 3. Click **OK**.

The **Create a new service** window displays.

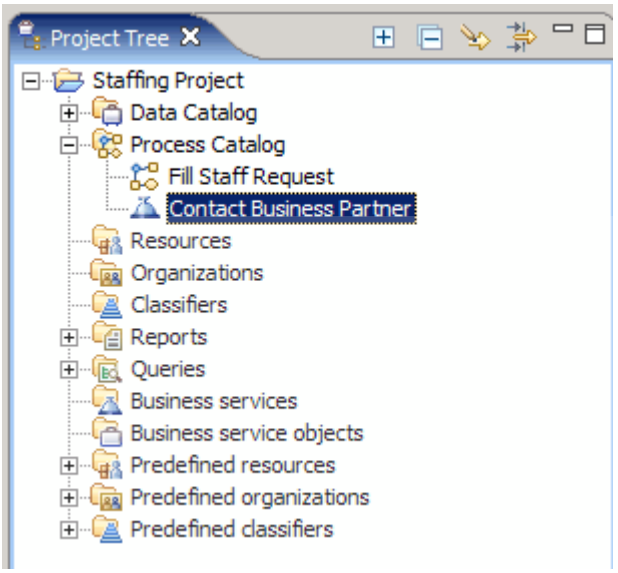
__ 4. Click **Finish**.

The conversion of **Contact Business Partner** from local task to global services is completed.



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Now the **Contact Business Partner** is a service which appears on the Project Tree under the Process Catalog.



__ 5. Press **Ctrl+S** to save.

__ 6. Exit Modeler (**File** —> **Exit**).

You may play the flashcard game after completion of the lab exercise.

Part 7: Review questions

Your instructor will review the following questions with you.

__ 1. What are the three modeling modes in Modeler that you can set when you create your process model?

_____

__ 2. What is the function of a repository in Modeler?

_____

__ 3. What is the difference between a task and a process?

_____

__ 4. What is the difference between a stop and an end?

_____

__ 5. What is a service in Modeler?

_____

__ 6. What is the purpose of converting elements from local to global?

_____

__ 7. Name some of the flow control elements that can be used in a process model.

_____

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END OF EXERCISE

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Exercise 5. Define elements and attributes

What this exercise is about

This lab will provide hands-on experience in updating a process using WebSphere Business Modeler. In this exercise, you will provide additional information about the Fill Staff Request process.

What you should be able to do

At the end of the lab, you should be able to:

- Edit and create data structures
- Define organization units
- Create roles
- Associate colors with roles
- Create timetables
- Create resources
- Assign roles and organization units to tasks
- Assign costs and durations
- Assign classifiers

Requirements

Previous labs should be completed successfully.

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Exercise instructions

This lab walks you through the steps to update the business process model.

Part 1: Opening workspace

__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Browse to **C:\ClassWorkspaces\Lab5**.

__ 3. Click **OK**.

Part 2: Editing and creating data structures

__ 4. Double-click the **Fill Staff Request** process from the **Project Tree**, if not already open.

__ 5. From the Project Tree, right-click **Data Catalog** and select **New —> Business Item**.

__ 6. Enter `Customer Information` as the name of the new business item and click **Finish**.

The business item editor for **Customer Information** will appear in the pane to the right.

__ 7. Click the **Add** button to create a new attribute for your business item.

__ 8. Click the gray attribute field and name it Company Name. Leave the default Type as **String**.

__ 9. Repeat the previous step to add the following business item attributes:

Name		Type	Minimum	Maximum
Company Name		String	1	1
Contact Name		String	1	1
Address		String	1	1
Phone Number		String	1	1

__ 10. Save the business item attributes (Ctrl+S).

__ 11. Close the business item editor by clicking the **X** in the **Customer Information** tab at the top of the window.

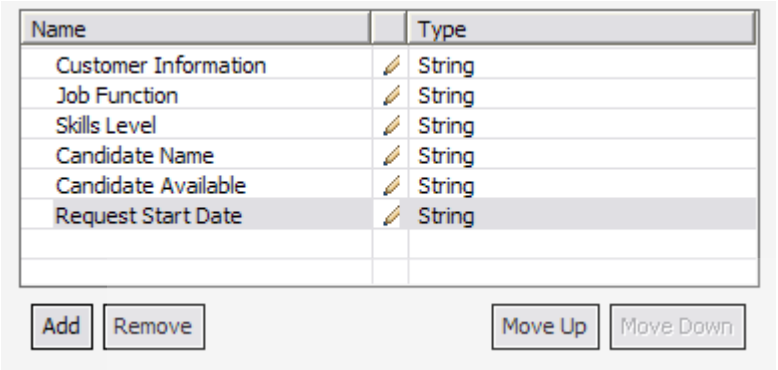
__ 12. In the Project Tree, double-click the existing **Staff Request** business item under S**taffing Project** —> **Data Catalog**.

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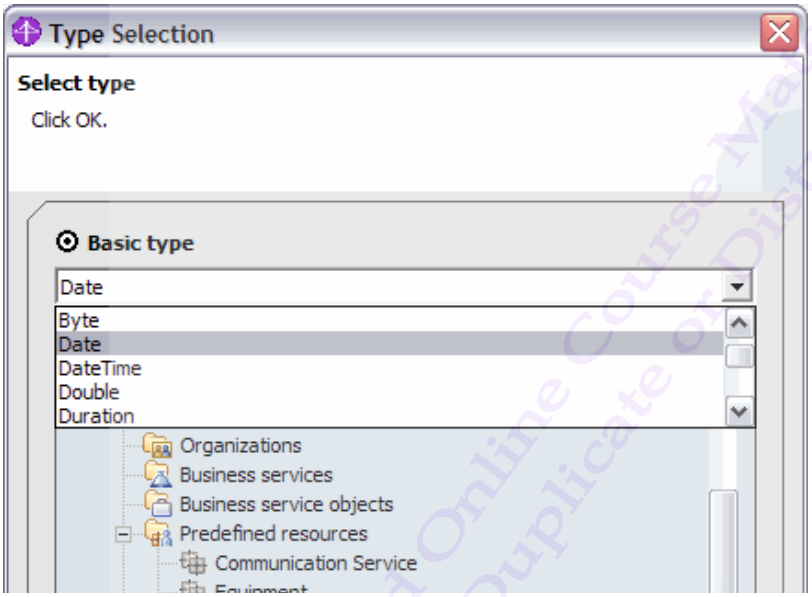
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__ 13. Create the following business item attributes:



__ 14. For **Request Start Date**, click the field under **Type**, click **...**, select **Basic type**, and select **Date**.



__ 15. Change the default Type of **Customer Information**.

__ a. Click **String**, and then click the small button that appears to the right of the field.

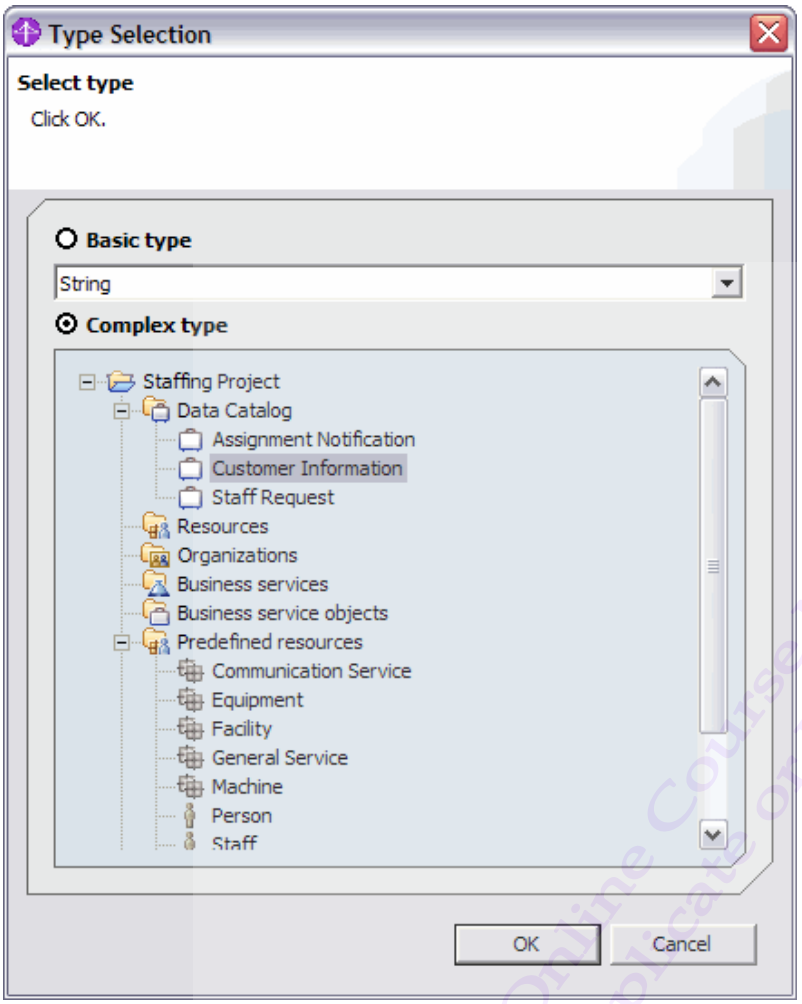
__ b. Select **Customer Information** under **Staffing Project —> Data Catalog**.

Note that the **Complex type** radio button has now been selected (instead of **Basic**).

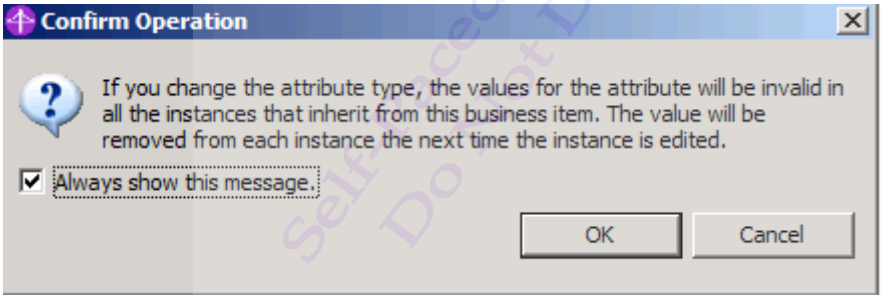
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__ c. Click **OK**.



__ 16. Click **OK** at the **Confirm Operation** dialog box.


Confirm Operation
If you change the attribute type, the values for the attribute will be invalid in all the instances that inherit from this business item. The value will be removed from each instance the next time the instance is edited.
Always show this message.
OK
Cancel

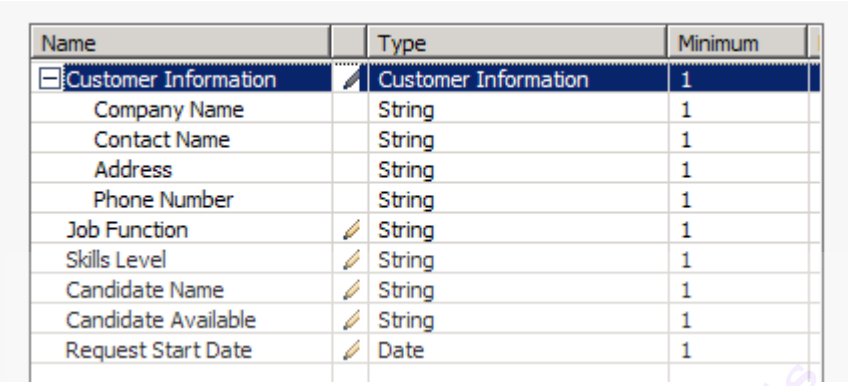
The `Staff Request` business item attribute should look as follows:

Name	Type	Minimum
Customer Information	Customer Information	1
Job Function	String	1
Skills Level	String	1
Candidate Name	String	1
Candidate Available	String	1
Request Start Date	Date	1

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__ 17. Click (+) to expand the Customer Information.

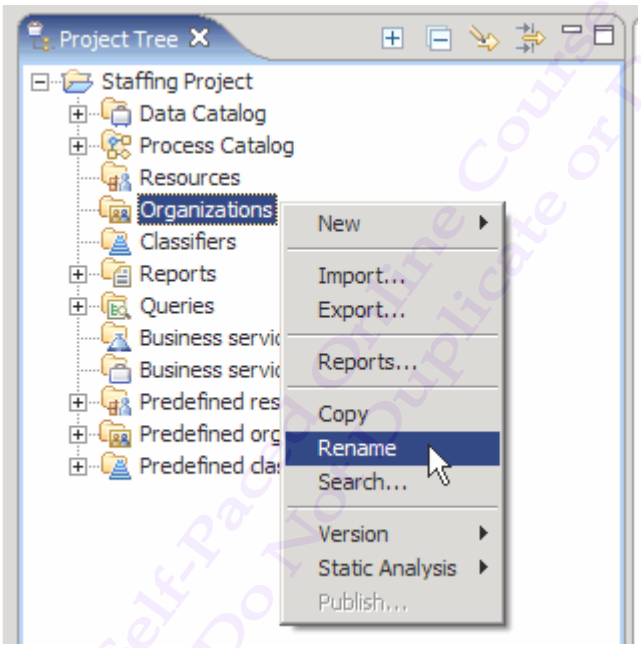


Name		Type	Minimum
Customer Information		Customer Information	1
Company Name		String	1
Contact Name		String	1
Address		String	1
Phone Number		String	1
Job Function		String	1
Skills Level		String	1
Candidate Name		String	1
Candidate Available		String	1
Request Start Date		Date	1

__ 18. Save (Ctrl+S) and close the business item **Staff Request** editor.

Part 3: Creating organization units

__ 1. From the **Project Tree**, under **Staffing Project**, right-click **Organizations** and select **Rename**.

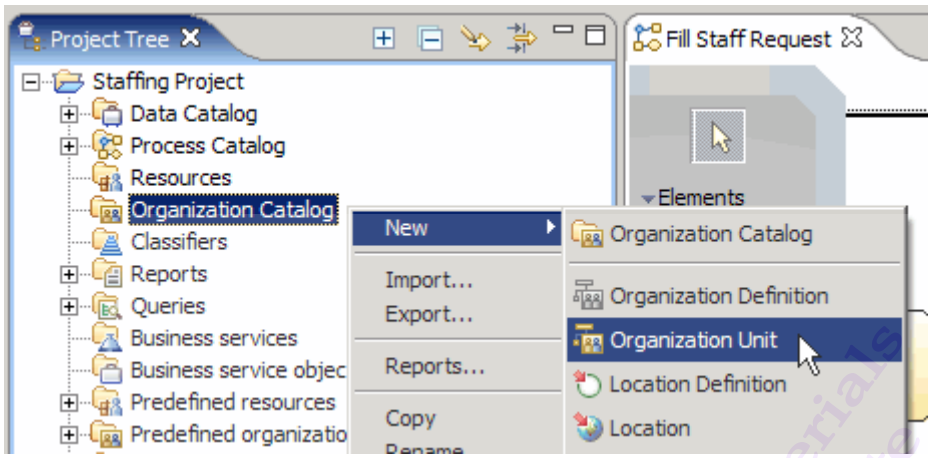


__ 2. Enter `Organization Catalog` as the name.

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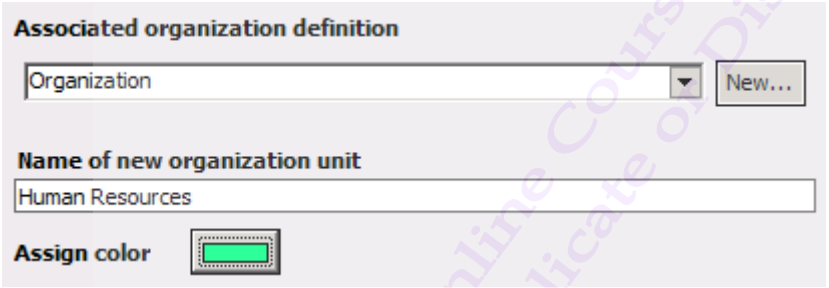
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__ 3. From the **Project Tree**, right-click **Organization Catalog** and select **New —> Organization Unit**.



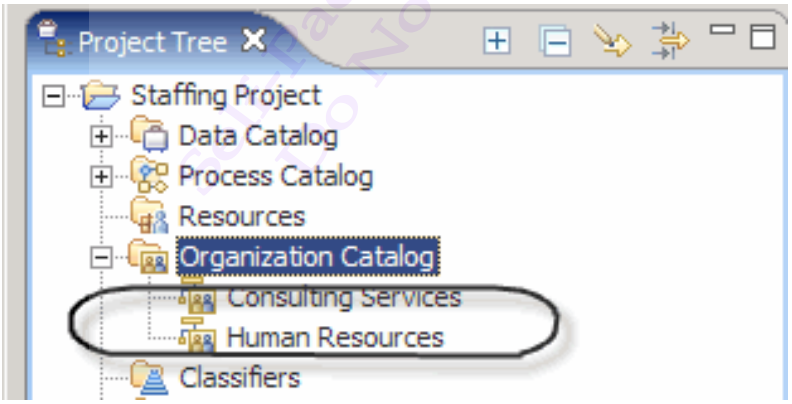
__ 4. Enter `Human Resources` as the name of new organization unit.

__ 5. Click the button next to **Assign Color** and assign the color **Green** to this organization unit.



__ 6. Click **OK** and click **Finish**.

__ 7. Repeat the above steps to create the organization units for **Consulting Services** and assign it to **RED** color.



__ 8. Close the editors for these two organization units.

Part 4: Creating roles

__ 1. From the **Project Tree**, right-click **Resources** and select **Rename**.

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__ 2. Type `Resource Catalog` and press **Enter.**

__ 3. Right-click **Resource Catalog** and select **New —> Role**.

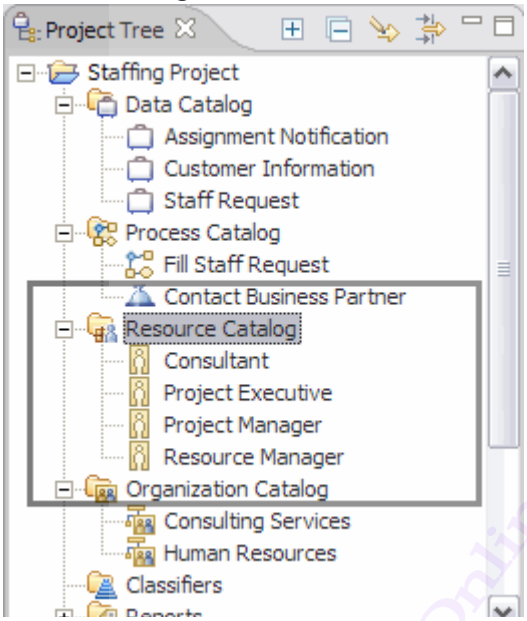
__ 4. At the **Create a new role** screen, enter `Project Manager` as **Name of new role**.

__ 5. Click **Finish**.

__ 6. Close the **Project Manager** Role editor in the right pane.

__ 7. Repeat the steps above to create three more roles: `Consultant`, `Project Executive`, and `Resource Manager`.

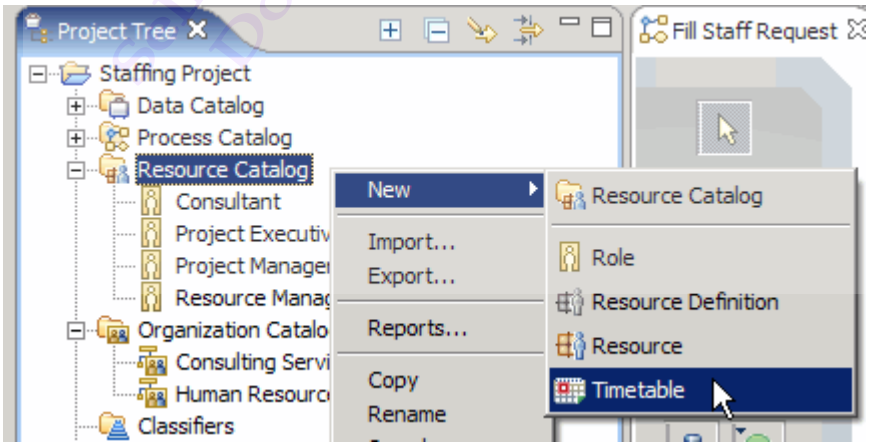
The following roles are now created:



__ 8. Close the editors for these three roles.

Part 5: Creating timetables

__ 1. Right-click **Resource Catalog** from the **Project Tree** and select **New —> Timetable**.



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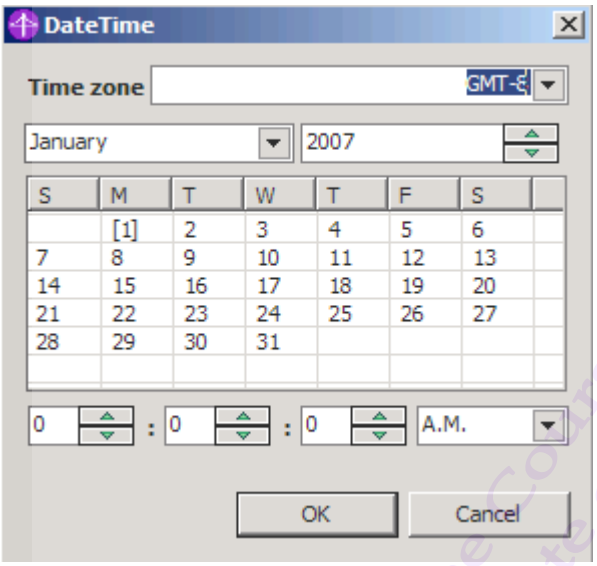
__ 2. At the **Create a new timetable** screen, type `Standard Work Week` as **Name of new timetable**, and click **Finish**.
The **Timetable editor** opens in the right pane.

__ 3. Enter the following in the **Standard Work Week**:

__ a. Enter `1 Days` for the **Repetition period**.

__ b. Click the **Select Time** button next to the **Beginning on** field.

__ c. Select **Monday, January 1, 2007 12:00:00 AM**.



Note

Use 0:0:0 A.M. for 12:00:00 AM

__ d. Click **OK.**

__ e. In the **Selected interval details** section, click the **Select Duration** button to input `9 hours`.

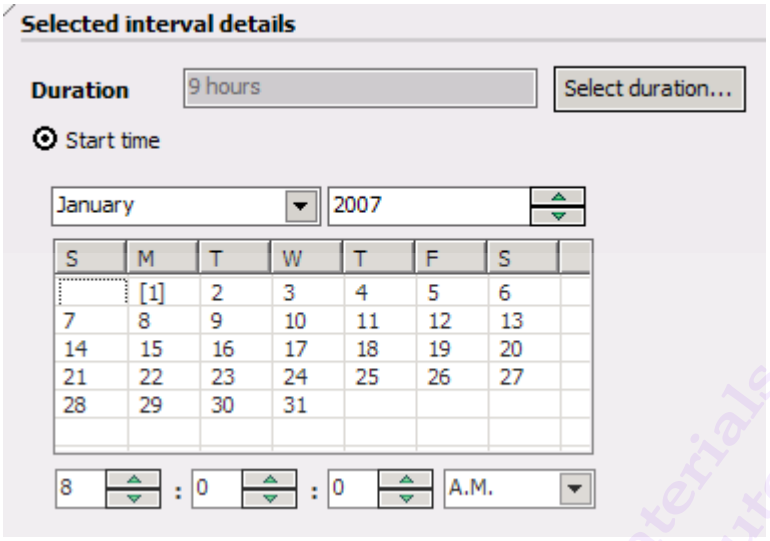
__ f. Click **OK**.

__ g. Select **January 1, 2007** from the calendar.

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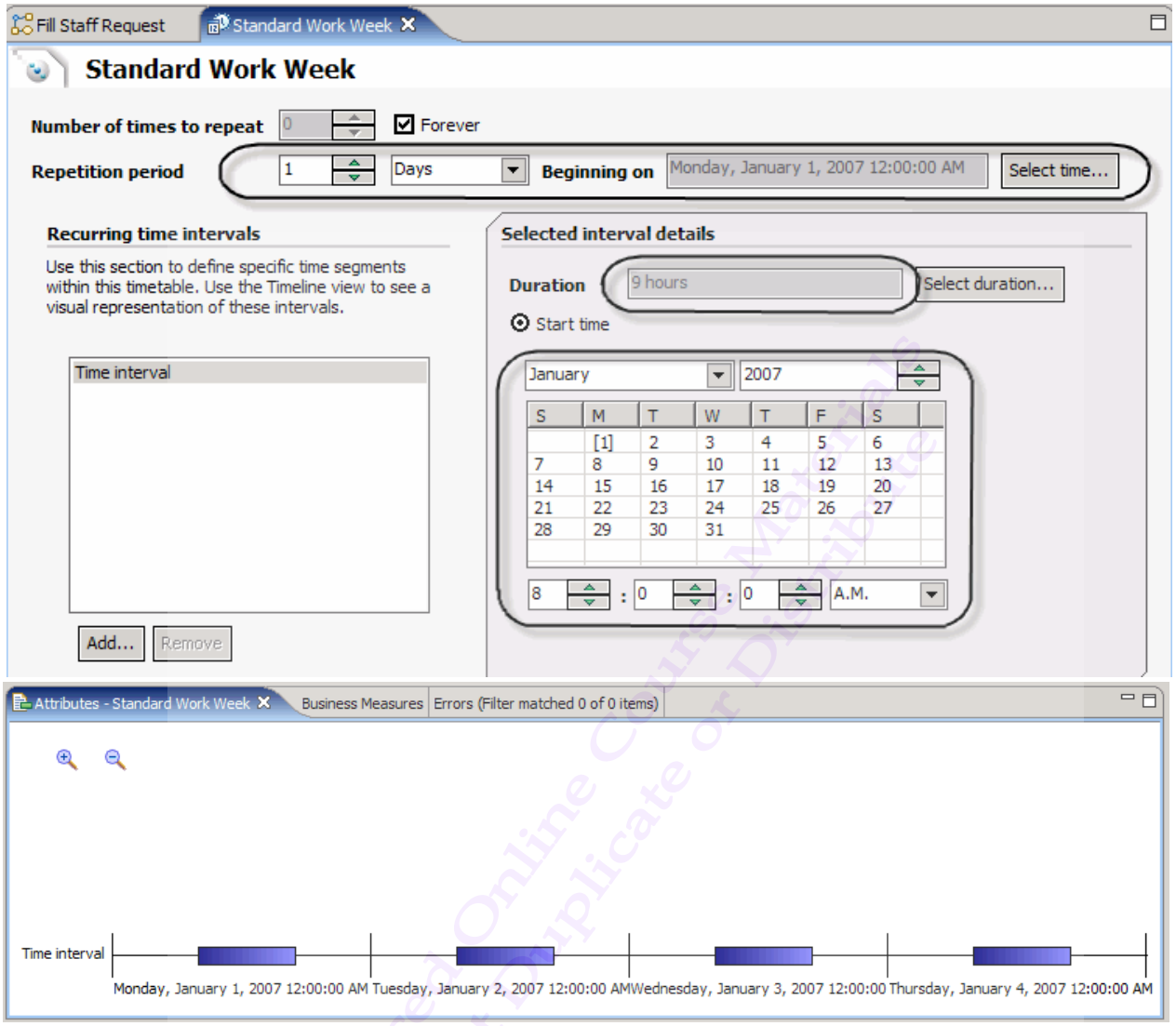
__ h. Choose `8:00:00 a.m.` as the **Start time**.


Selected interval details
Duration
9 hours
Select duration...
Start time
January
2007
S M T W T F S
[1] 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
8 : 0 : 0 A.M.

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The Standard Work Week timetable should be as follows:


Fill Staff Request
Standard Work Week
Standard Work Week
Number of times to repeat
0
Forever
Repetition period
1
Days
Beginning on
Monday, January 1, 2007 12:00:00 AM
Select time...
Recurring time intervals
Use this section to define specific time segments within this timetable. Use the Timeline view to see a visual representation of these intervals.
Time interval
Add...
Remove
Selected interval details
Duration
9 hours
Select duration...
Start time
January
2007
S M T W T F S
[1] 2 3 4 5 6
7 8 9 10 11 12 13
14 15 16 17 18 19 20
21 22 23 24 25 26 27
28 29 30 31
8 : 0 : 0 A.M.
Attributes - Standard Work Week
Business Measures
Errors (Filter matched 0 of 0 items)
Time interval
Monday, January 1, 2007 12:00:00 AM
Tuesday, January 2, 2007 12:00:00 AM
Wednesday, January 3, 2007 12:00:00
Thursday, January 4, 2007 12:00:00 AM

The Standard Work Week timetable indicates that there is a nine-hour work day every day. This timetable will repeat daily starting at 8:00 a.m. You will define the lunch break and weekend timetable, and assign them as exemption periods. You will create timetables for lunch break next.

__ 4. Close the **Standard Work Week** timetable editor.

__ 5. Right-click **Resource Catalog** from the **Project Tree** and select **New —> Timetable**.

__ 6. At the **Create a new timetable** screen, type `Standard Lunch` as **Name of new timetable**, and click **Finish**.
The **Timetable editor** opens in the right pane.

__ 7. Enter the following information in the **Standard Lunch**:

__ a. Enter `1 Days` for the **Repetition period**.

__ b. Click the **Select Time** button next to the **Beginning on** field.

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__ c. Select **Monday, January 1, 2007 12:00:00 AM**.

__ d. Click **OK.**

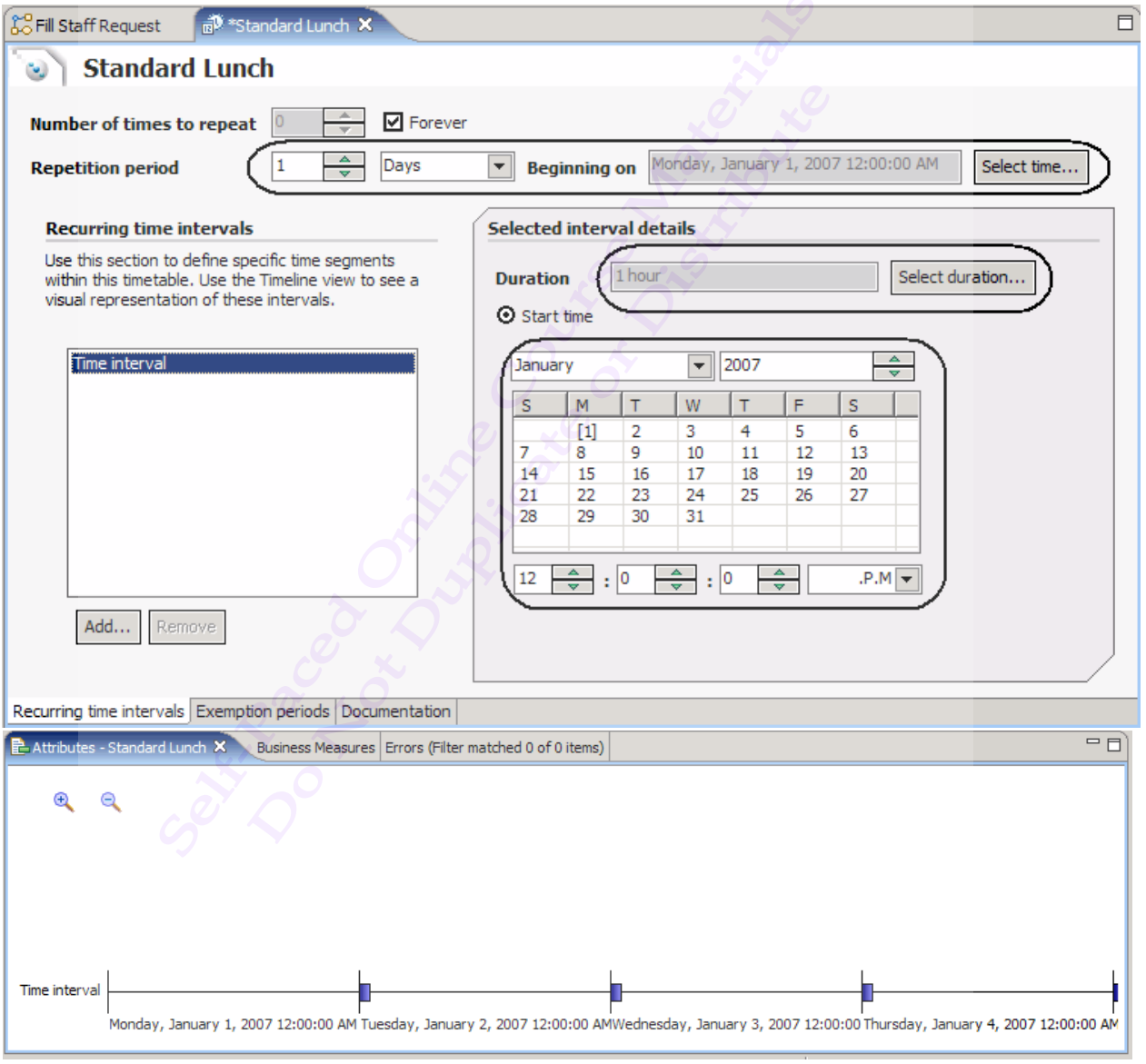
__ e. In the **Selected interval details** section, click the **Select Duration** button to input `1 hours`.

__ f. Click **OK**.

__ g. Select **January 1, 2007** from the calendar.

__ h. Choose **12:00:00 pm** as the **Start time**.

Your Standard Lunch timetable should be as follows:



The Standard Lunch timetable indicates that there is an hour lunch break every day. This timetable will repeat daily starting at 12:00 p.m. You will define the weekend timetable next.

__ 8. Press **<Ctrl+S>** to save.

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__ 9. Close the **Standard Lunch** timetable editor.

__ 10. Right-click **Resource Catalog** from the **Project Tree** and select **New —> Timetable**.

__ 11. At the **Create a new timetable** screen, type `Standard Weekend` as **Name of new timetable**, and click **Finish**.
The **Timetable editor** opens in the right pane.

__ 12. Enter the following in the **Standard Weekend**:

__ a. Enter `7 Days` for the **Repetition period**.

__ b. Click the **Select time** button next to the **Beginning on** field.

__ c. Select **Saturday, January 1, 2007 0:00:00 AM**.

__ d. Click **OK.**

__ e. In the **Selected interval details** section, click the **Select Duration** button to input `48 hours`, because it covers Saturdays and Sundays.

__ f. Click **OK**.

__ g. Select **January 6, 2007** from the calendar.

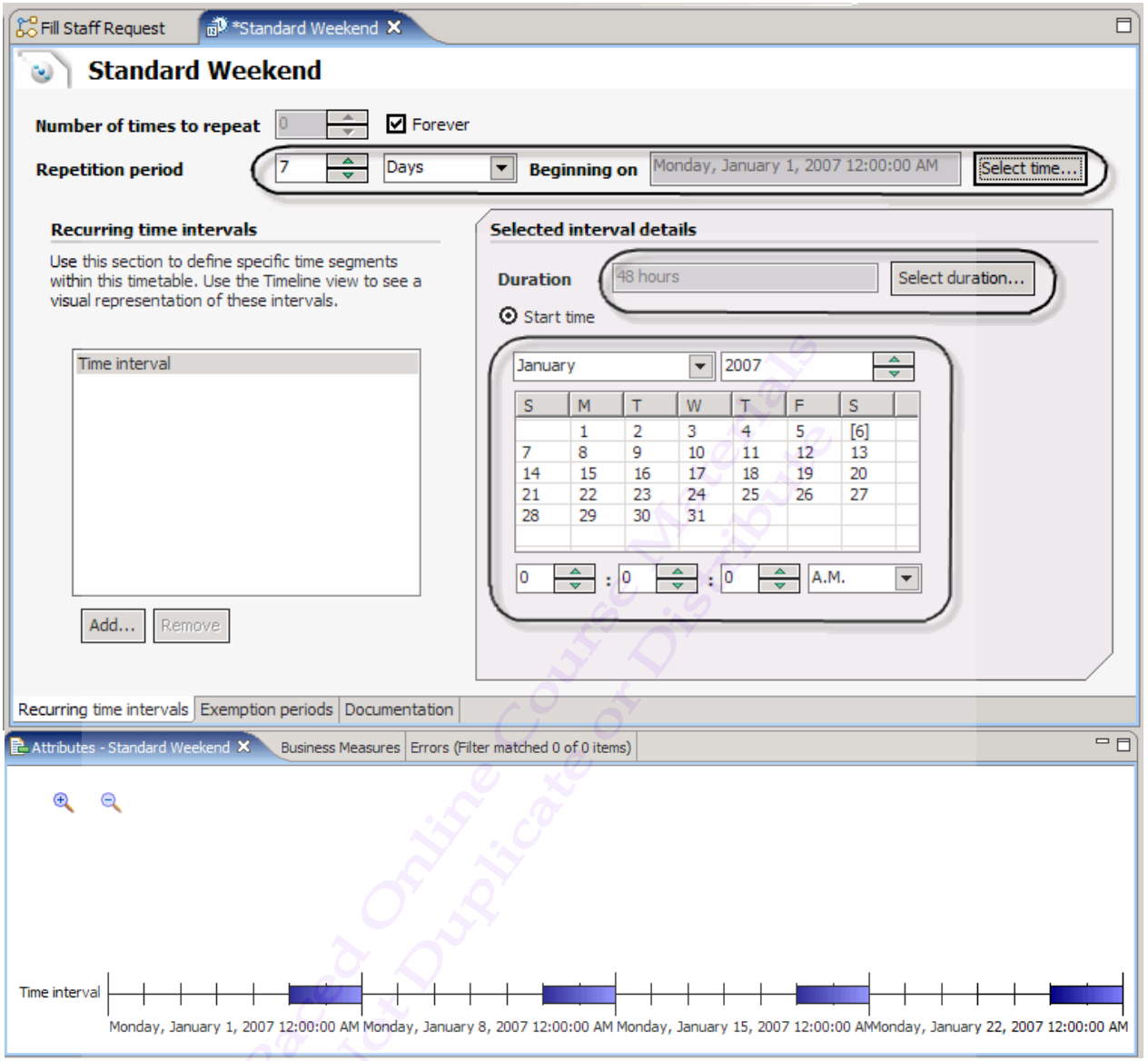
__ h. Choose **0:00:00 A.M.** as the **Start time**.

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Your Standard Weekend timetable should be as follows:



The Standard Weekend timetable indicates that there is a 48-hour weekend break every seven days. This timetable will repeat every Saturday starting at midnight.

Now you will add to add the Standard Lunch and Standard Weekend as an exemption to the Standard Work Week timetable.

__ 13. Press **<Ctrl+S>** to save.

__ 14. Close the **Standard Weekend** timetable editor.

__ 15. Double-click the **Standard Work Week** timetable under **Resource Catalog —> Timetable** in the **Project Tree**.

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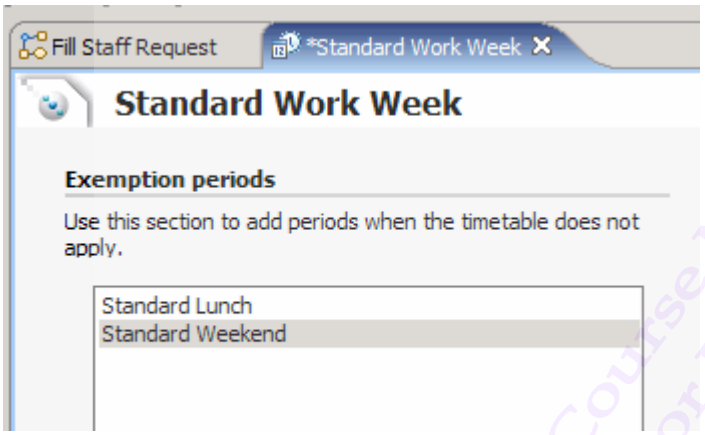
__ 16. Click the **Exemption Periods** tab in the bottom of the timetable editor.



__ 17. Click **Add** to select **Standard Lunch**.

__ 18. Click **Add** to select **Standard Weekend**.

__ 19. Now the Standard Work Week timetable has the exemption periods defined as follows:

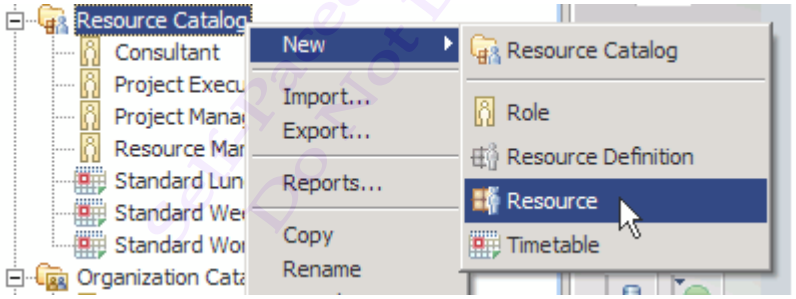


__ 20. Save (Ctrl+S).

__ 21. Close the timetable editor.

Part 6: Creating resources

__ 1. Right-click **Resource Catalog** from the Project Tree and select **New —> Resource**.



__ 2. At the **Create a new resource** screen, select **individual** as **Resource type**.

__ 3. Select **Person** as **Associated resource definition**, type `Sophia` as **Name of new resource**, and click **Finish**.

A resource editor for **Sophia** is displayed in the right pane.

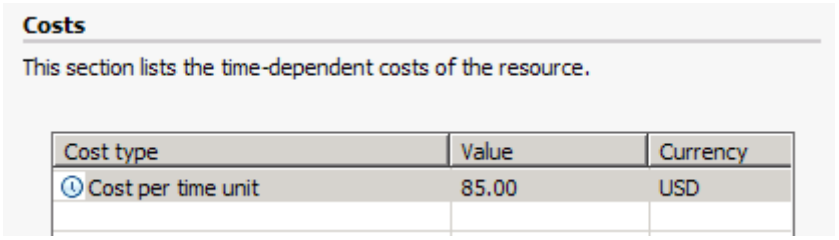
__ 4. In the **Costs** tab, click the **Add** button.

__ 5. Select **Cost per time unit** and click **OK**.

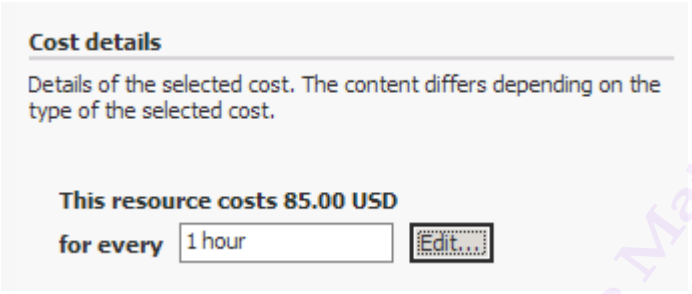
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__ 6. Click the cell under **Value** and enter `85.00` USD.

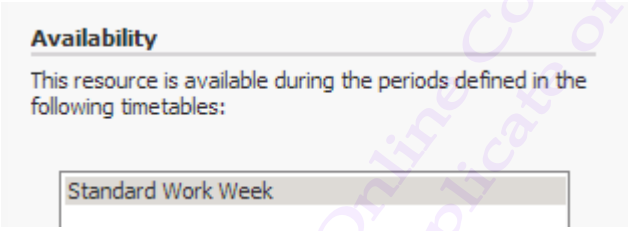


__ 7. In the **Cost Details** to the right, click **Edit**, and enter `1 hour` as **Duration**, and click **OK**.


Cost details
Details of the selected cost. The content differs depending on the type of the selected cost.
This resource costs 85.00 USD
for every
1 hour
Edit...

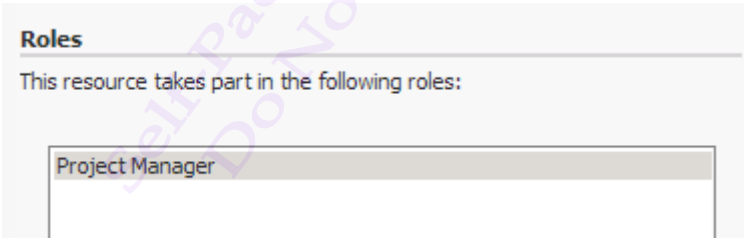
__ 8. Click the **Availability** tab at the bottom of the pane and click the **Add** button.

__ 9. Select **Standard Work Week** under **Resource Catalog** and click **OK**.



__ 10. Click the **Roles** tab, and click the **Add** button.

__ 11. Select **Project Manager** and click **OK**.



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__ 12. Click the **Attributes** tab and, under **Resource attributes**, select the **personId** row.

Resource attributes

Attributes of the resource definition. If the resource definition is updated, refresh the table to synchronize this resource with the resource definition.

Name	Type	Minimum	Maximum	First value
personId	String	1	1	
lastName	String	1	1	
firstName	String	0	1	
middleName	String	0	1	
preferredName	String	0	1	
gender	String	0	1	
preferredLanguage	String	0	1	

Note

The pencil symbol indicates that this field is an input field.



__ 13. Click the cell under **First value**, and enter `001`.

__ 14. Enter the following data for firstName and lastName.

Name	Type	Minimum	Maximum	First value
personId	String	1	1	001
lastName	String	1	1	Smith
firstName	String	0	1	Sophia
middleName	String	0	1	
preferredName	String	0	1	
gender	String	0	1	
preferredLanguage	String	0	1	

__ 15. Save (Ctrl+S) and close the resource editor.

__ 16. Repeat the previous steps in this section to create three new individual resources:

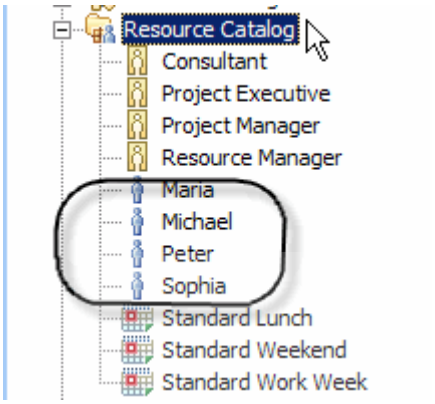
- **`Michael Johnson`**, with a cost of **`$125 USD`** per hour and availability of **`Standard Work Week`**, as **`Project Executive`** with person ID `002`.
- **`Maria Lee`**, with a costing of **`$65 USD`** per hour and availability of **`Standard Work Week`**, as **`Resource Manager`** with person ID `003`.
- **`Peter LaRue`**, with a costing of **`$55 USD`** per hour and availability of **`Standard Work Week`**, as **`Consultant`** with person ID `004`.

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Now you have created the following individual resources:



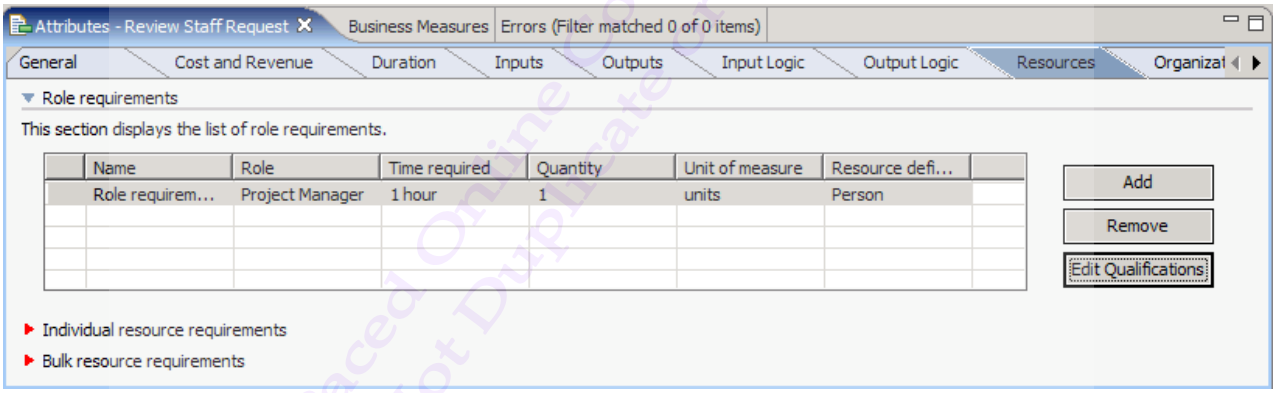
Part 7: Assigning roles and organization units to tasks

__ 1. Return to the process editor of the **Fill Staff Request** process.

__ 2. Select the **Review Staff Request** task.

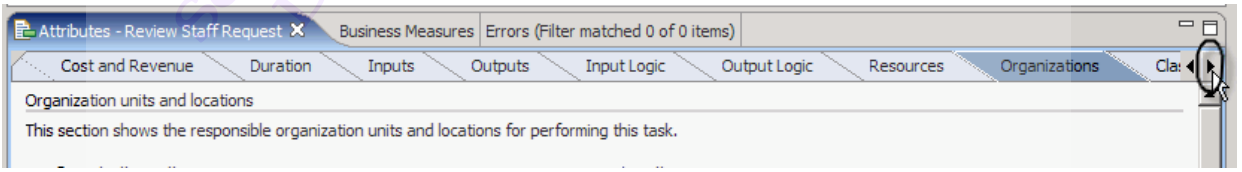
__ 3. In the **Attributes view**, select the **Resources** tab.

__ 4. In the **Role requirements** section, click the **Add** button and enter the following information:



__ 5. Select the **Organizations** tab, which is located next to the **Resources** tab.

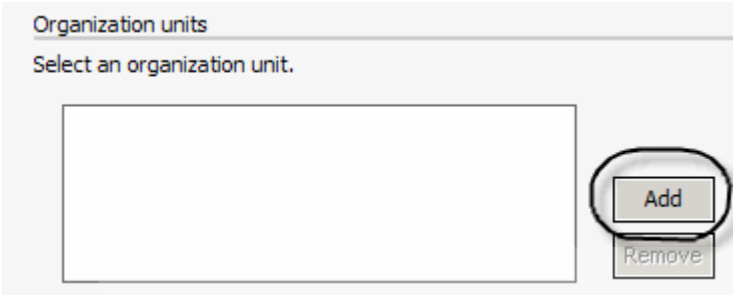
If you cannot see this tab, click the scroll arrow button (see circled item below).



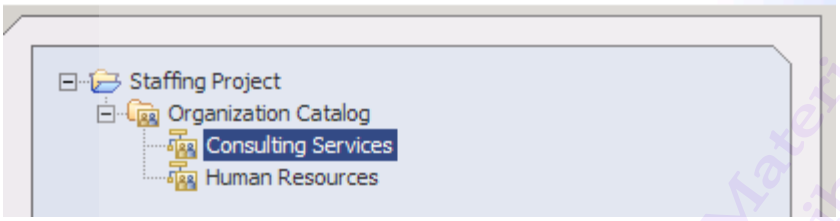
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__ 6. Click the **Add** button under Organization units.

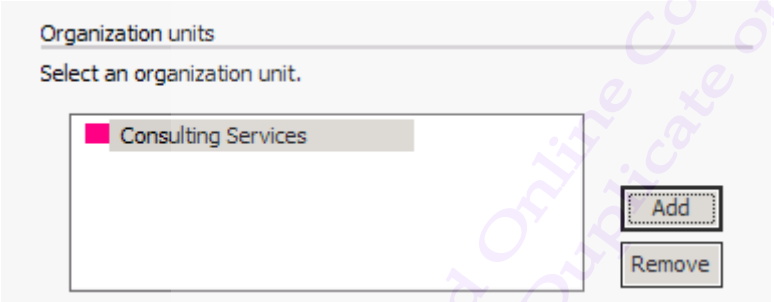


__ 7. Select **Consulting Services** from the list.



__ 8. Click **OK**.

The **Consulting Services** organization unit is now added to the **Review Staff Request** task.



__ 9. You have just completed the role requirement and added the organization unit for the **Review Staff Request** task. Now, you will define the role requirement for each of the remaining tasks in the table below:

Task	Role	Time required	Qty	Unit of measure-ment	Resource definition	Organization unit
Check consult-ant availability	Resource manager	30 min	1	Units	Person	Human Resources
Assign team	Project man-ager	30 min	1	Units	Person	Human Resources
Change assign-ment	Resource manager	30 min	1	Units	Person	Human Resources
Contact cus-tomer	Project man-ager	1 hour	1	Units	Person	Consulting Services

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Task	Role	Time required	Qty	Unit of measure-ment	Resource definition	Organization unit
Schedule future assignment	Resource manager	30 min	1	Units	Person	Human Resources
Notify project executive	Project exec-utive	15 min	1	Units	Person	Consulting Services
Notify employee	Consultant	15 min	1	Units	Person	Consulting Services

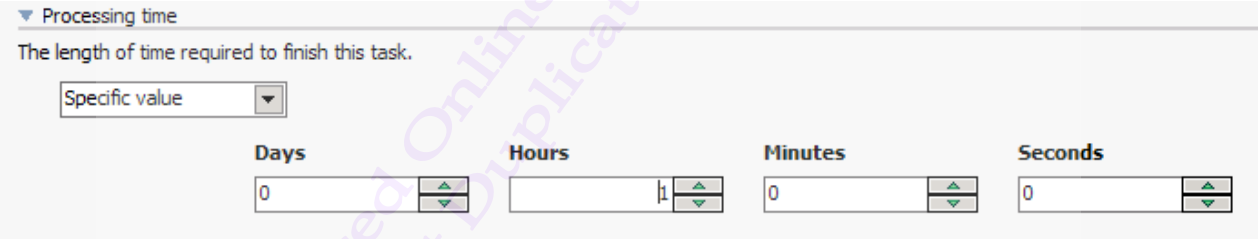
__ 10. Save your work (Ctrl+S).

Part 8: Defining task durations

In this section, you will be allocating the amount of time required to complete each task. Although you allocated resources to each task within the process model, the time taken to perform a task is not necessarily the same as the time for which the resource is allocated.

__ 1. Within the **process editor** for the **Fill Staff Request** process, select the **Review Staff Request** task.

__ 2. From the **Attributes** pane, select the **Duration** tab and enter `1` hour under **Processing time**.
Note that `Literal value` is now selected automatically.



__ 3. Similarly, change the processing times of the other elements as follows:

Check Consultant Availability: `45 minutes`

Assign Team: `30 minutes`

Change Assignment: `1 hour`

Contact Customer: `2 hours`

Schedule Future Assignment: `30 minutes`

Notify Project Executive: `1 hour`

Notify Employee: `30 minutes`

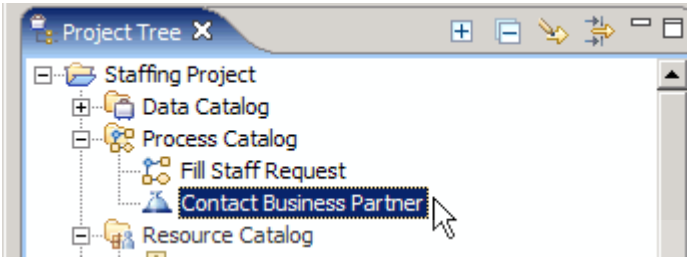
Decisions and merges do not have durations.

__ 4. You will also need to define the duration for services called **Contact Business Partner**.

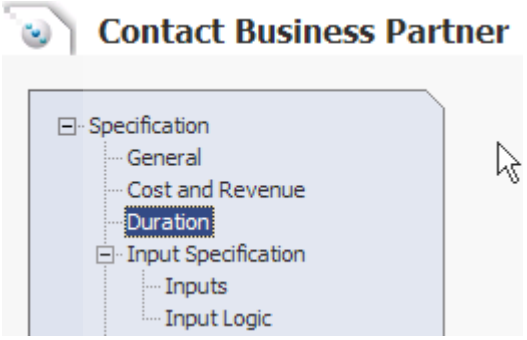
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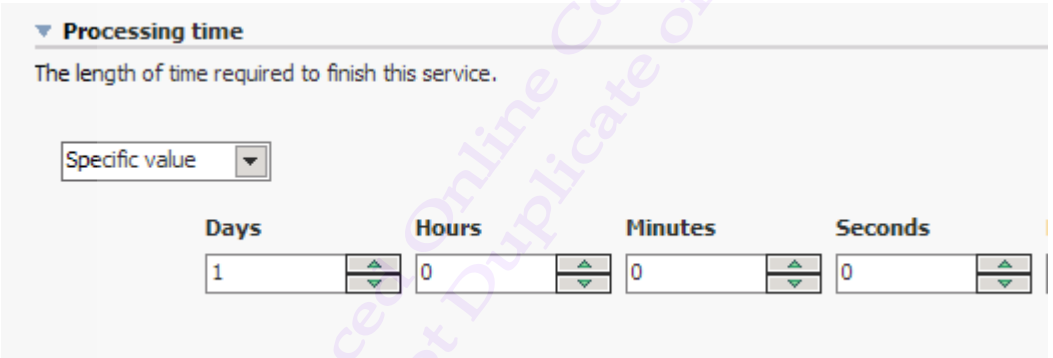
__ 5. Double-click the **Contact Business Partner** services under the Process Catalog in the Project Tree.



__ 6. The service editor appears on the right, select **Duration.**



__ 7. Enter `1 day` as the processing time.

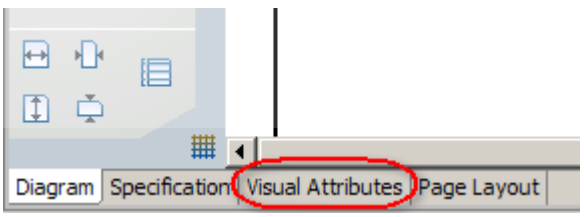


__ 8. Save your work (Ctrl+S).

__ 9. Close the service editor.

Part 9: Adding labels to diagram

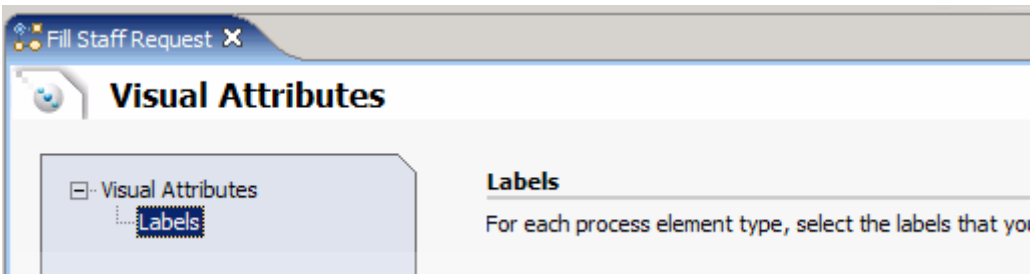
__ 1. From the bottom of the **process editor**, click **Visual attributes**.



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__ 2. In the **Visual attributes** pane, click **Labels**.



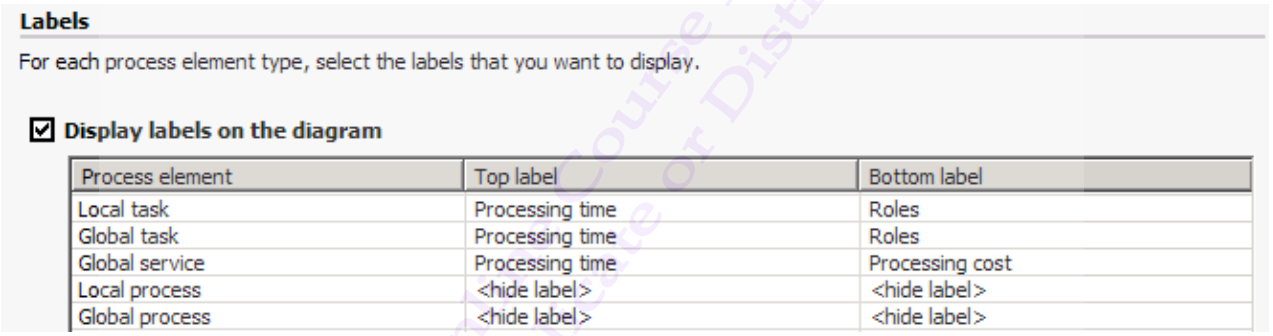
__ 3. Check the box next to **Display labels on the diagram**.

__ 4. In the row labeled **Local task**, double-click the cell under **Top label** and select **Processing time** from the drop-down menu.

__ 5. Assign **Roles** as the bottom label for **Local task**.

__ 6. Repeat the previous two steps for the **Global task.**

__ 7. Assign Processing time and Processing cost for **Global service**.



Labels

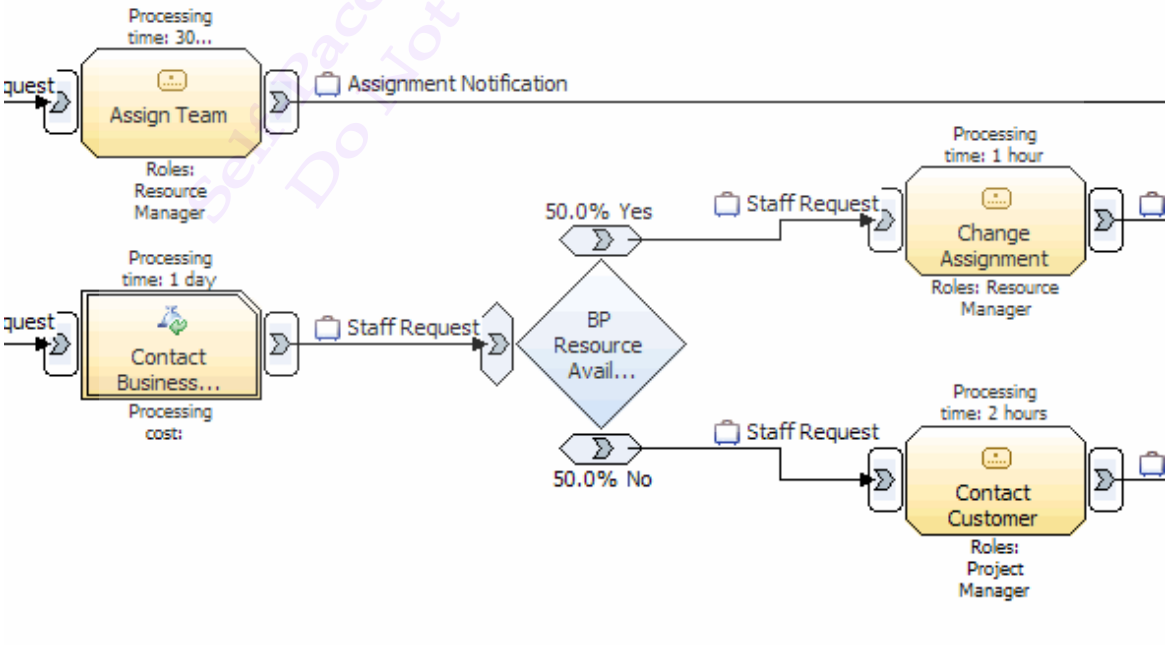
For each process element type, select the labels that you want to display.

☑ **Display labels on the diagram**

Process element	Top label	Bottom label
Local task	Processing time	Roles
Global task	Processing time	Roles
Global service	Processing time	Processing cost
Local process	<hide label>	<hide label>
Global process	<hide label>	<hide label>

__ 8. Click the **Diagram** tab at the bottom of the pane to return to the process diagram.

__ 9. Note that the labels above and below each task now have values:



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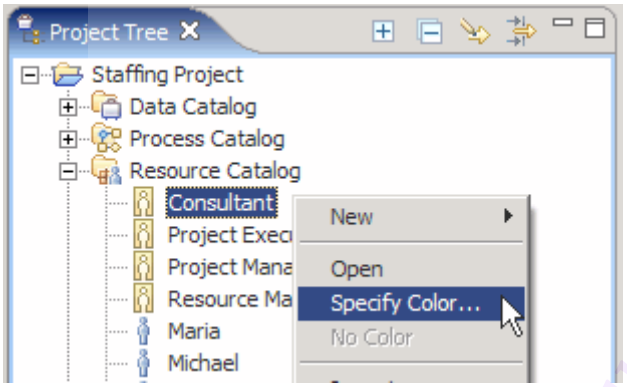
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__ 10. Save the process (Ctrl+S).

Part 10: Associating colors with roles

You can specify a color when you create roles, organization units, and so on, and you can also specify or change the color from the Project Tree. In this section, you will be associating roles with colors. Color coding in this fashion helps you see at a glance how many tasks each role performs.

__ 1. From the Project Tree, under **Resource Catalog**, right-click **Consultant** and select **Specify Color**.



The **Color** window appears.

__ 2. Select a **Yellow** color and click **OK**.

__ 3. Similarly, perform the above steps to associate colors with the following roles:

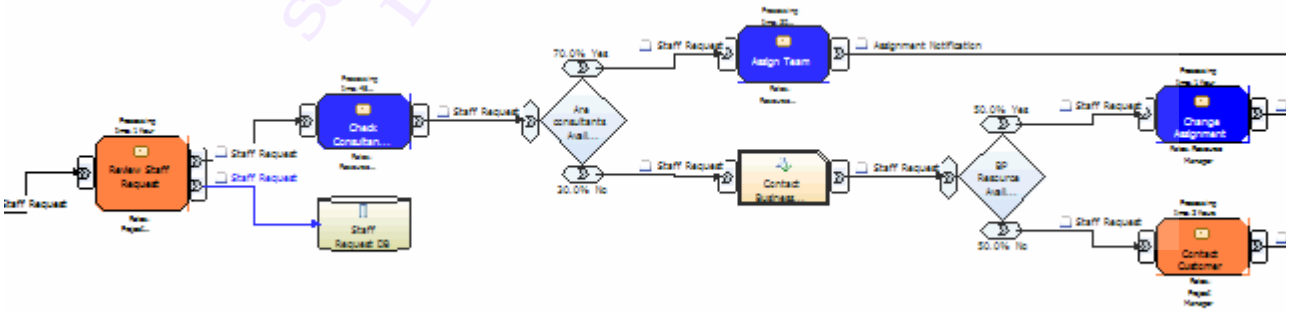
Project executive: purple

Project manager: orange

Resource manager: blue

__ 4. Right-click the white space of the **Fill Staff Request process editor** and select **Color By —> Role**.

Tasks are now color-coded according to their associated roles.



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Note

If there are multiple roles assigned to a task, only the color of first role assigned will be display.

__ 5. Turn off color-coding by right-click the process diagram and selecting **Restore Default Color**.

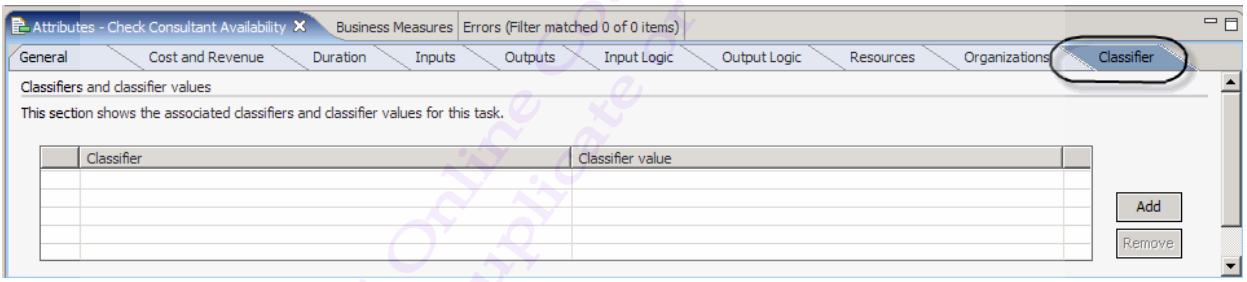
__ 6. Close all editors.

Part 11: Assigning classifiers

Classifiers enable the user to categorize tasks and other process elements for decision-making or process optimization. Predefined classifiers are provided for quality-control, value added, and workflow. Custom classifiers can also be defined.

__ 1. From the **Fill Staff Request** process editor, select the **Check Consultant Availability** task.

__ 2. In the **Attributes** pane, click the **Classifiers** tab.

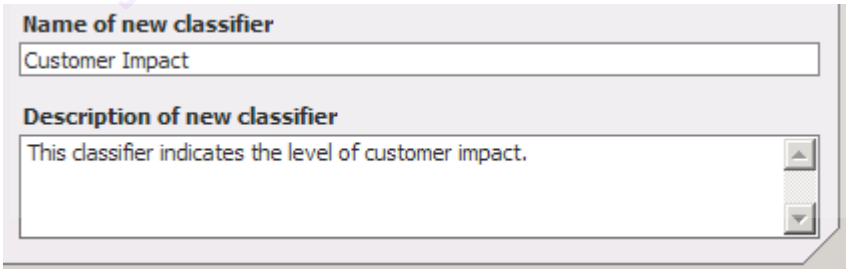


__ 3. Click the **Add** button.

__ 4. In the **Select classifier value** window, click **New Classifier...** button.

__ 5. Enter `Customer Impact` as **Name of new classifier**.

__ 6. Enter: `This classifier indicates the level of customer impact.` as **Description of new classifier.**


Name of new classifier
Customer Impact
Description of new classifier
This classifier indicates the level of customer impact.

__ 7. Click **Finish**.

__ 8. In the **Select classifier value** window, click the **New Classifier Value...** button.

__ 9. Enter `Low` as **Name of new classifier value**.

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__ 10. Enter `Low customer impact` as **Description of new classifier value.**

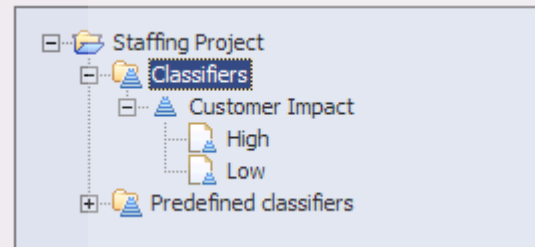
__ 11. Click **Finish**.

__ 12. In the **Select Classifier value** window, click **New Classifier Value...** button.

__ 13. Enter `High` as **Name of new classifier value**.

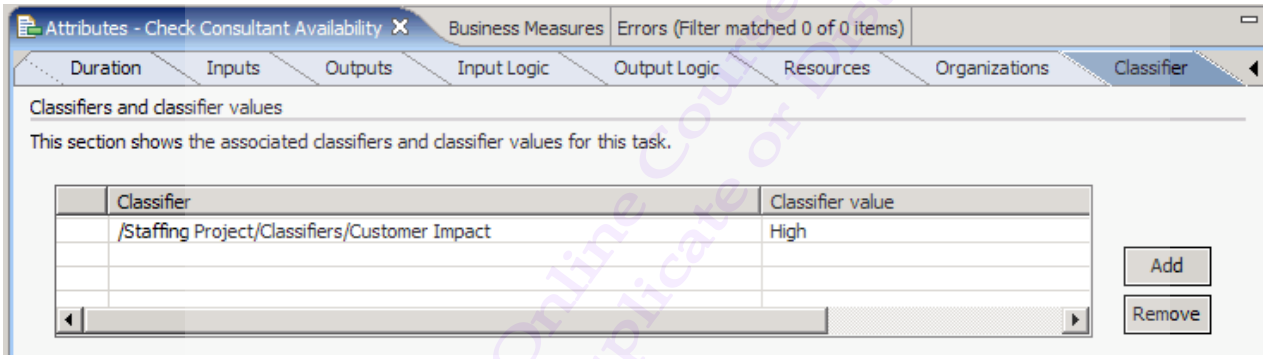
__ 14. Enter `High customer impact` as **Description of new classifier value.**

__ 15. Click **Finish**.

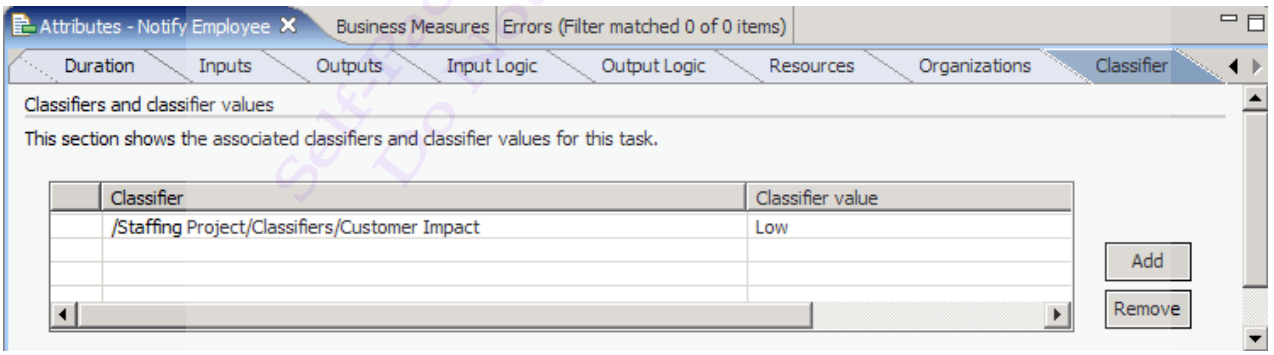


__ 16. Click **OK**.

The classifier value has been assigned to the task.



__ 17. Repeat the previous steps to add a classifier to the **Notify Employee** task; it has low customer impact.



__ 18. Assign classifiers to the following tasks:

Review Staff Request: `Real value added`

Schedule Future Assignment: `Real value added`

Notify Project Executive: `High customer impact`

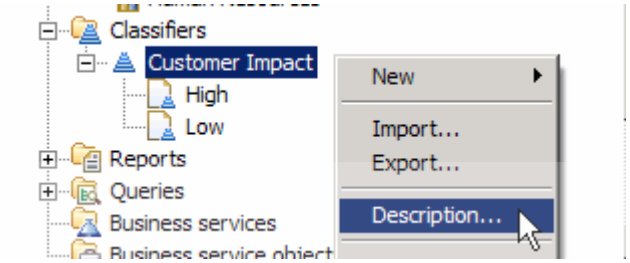
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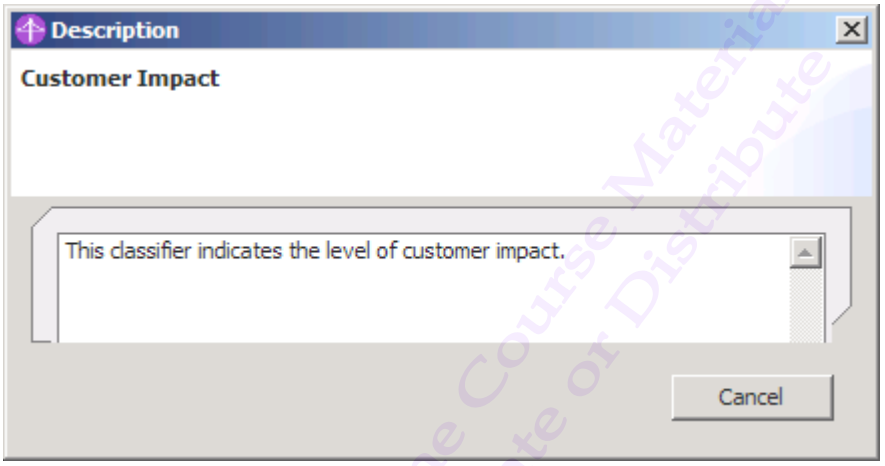
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__ 19. To verify the description of the user defined classifier, select **Staffing Project —> Classifiers —> Customer Impact** from the Project Tree.

__ 20. Right-click the **Customer Impact**, and select **Description..**.



The description of the classifier displays.



__ 21. Save changes by pressing the Ctrl+S.

__ 22. Click **File** —> **Exit** to exit the Modeler.

You may play the flashcard game after completion of the lab exercise.

Part 12: Review questions

Your instructor will review the following questions with you.

__ 1. What is the definition of a business item?

_____

__ 2. What is the difference between business service and a service in Modeler?

_____

__ 3. What is a business service object?

_____

__ 4. When defining timetables, how do you specify lunch break or vacation time for the resources?

_____

__ 5. What is the difference between roles and resources?

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_____

__ 6. What is the function of a classifier?

_____

END OF EXERCISE

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Exercise 6. Completing the process model

What this exercise is about

This lab will provide hands-on experience in completing the process model and using the swimlane view.

What you should be able to do

At the end of the lab, you should be able to:

- Define decision expressions
- Convert local elements to global elements
- Switch to swimlane layout
- Add URL to description
- Attach a file to the process
- Use search and used by functions

Requirements

Previous labs should be completed successfully.

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Exercise instructions

Part 1: Opening workspace

__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Browse to **C:\ClassWorkspaces\Lab6**.

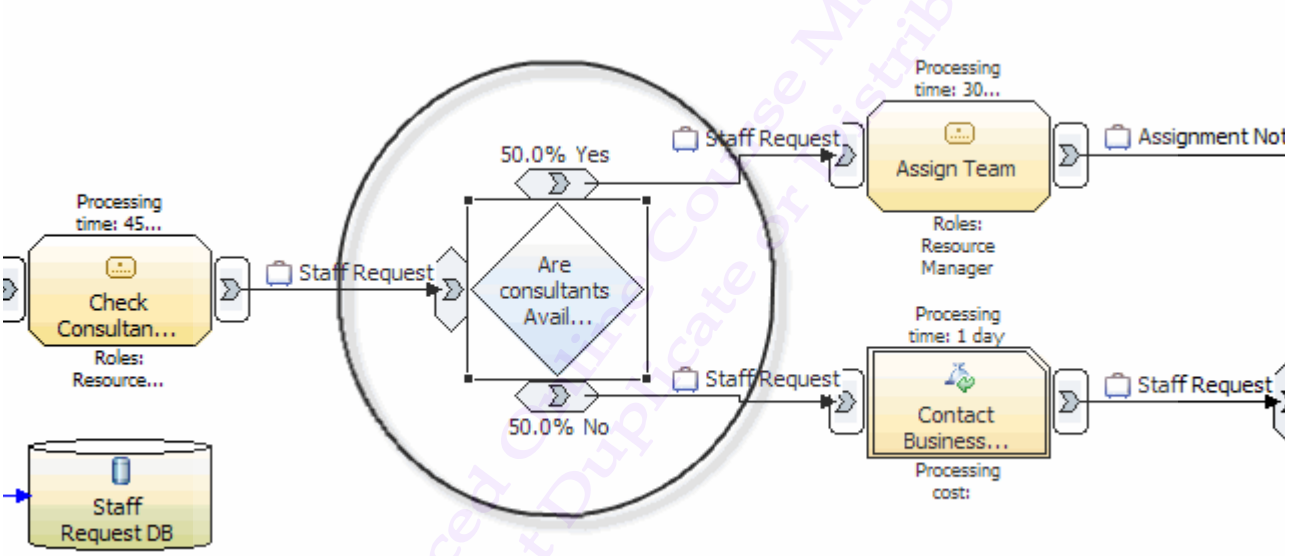
__ 3. Click **OK**.

Part 2: Defining decision expressions

__ 1. Make sure that you are working in the **Intermediate** mode.

__ 2. Open the **Fill Staff Request** process from the Project Tree.

__ 3. Select the **Are Consultants Available?** decision in the process diagram.



__ 4. In the **Attributes - Are Consultants Available?** view, select the **Output branches** tab.

You will see Yes and No output branches.

Output branches

This section shows the output branches for this decision.

Name	Contents	Condition	Probability (%)
Yes	Output	Yes	50.0
No	Output:2	No	50.0

__ 5. Change the value of Probability (%) to `70` for Yes.

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__ 6. Change the value of Probability (%) to 30 for No.

Name	Contents	Condition	Probability (%)
Yes	Output	Yes	70.0
No	Output:2	No	30.0

Note

All the probabilities must be sum to 100% or you will get an error in the Errors tab.

__ 7. Select the row with condition **Yes**.

Name	Contents	Condition	Probability (%)
Yes	Output	Yes	70.0
No	Output:2	No	30.0

__ 8. Scroll to the bottom of the **Attributes view** pane and click the **Edit...** button to open the **Expression Builder**.

Note

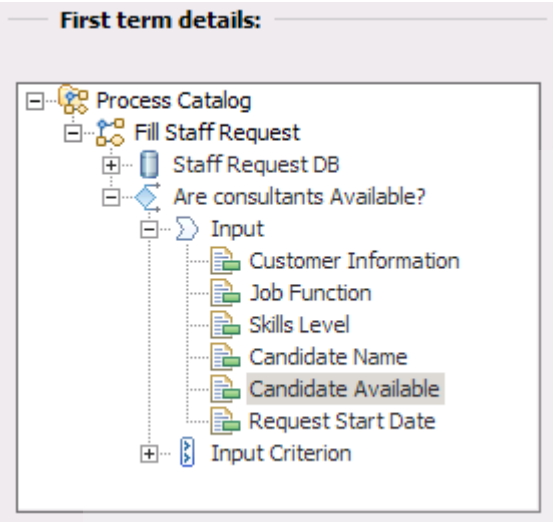
If you do not see the **Edit Expression** button, make sure that you are in either the Intermediate or Advanced User Profile.

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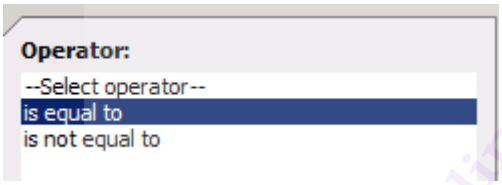
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__ 9. Verify that **Modeling artifact** is selected under the **First term** field.

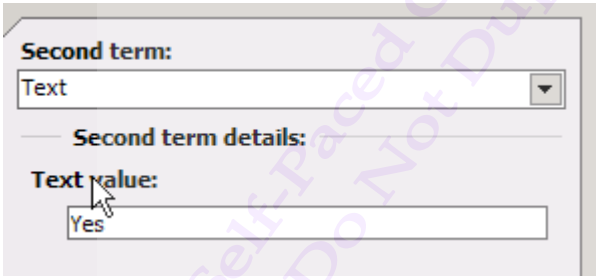
__ 10. In the **First term details**, select **Candidate Available** under **Process Catalog —> Fill Staff Request —> Are consultants available? —> Input.**



__ 11. Select **is equal to** under **Operator**.

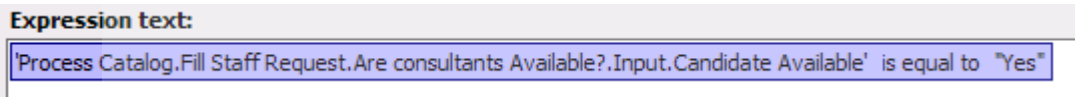


__ 12. Select **text** from the **Second term** drop-down list and enter `Yes` as the **Text value**.



__ 13. Click **Apply**.

__ 14. Review and verify the expression under **Expression text.**


Expression text:
'Process Catalog.Fill Staff Request.Are consultants Available?.Input.Candidate Available' is equal to "Yes"

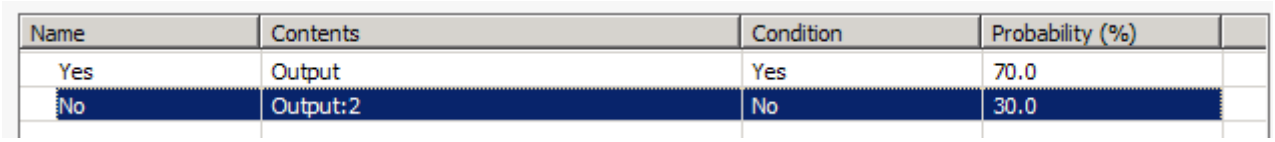
__ 15. Click **OK**.

Since this is a simple decision, you will only need to specify the expression for one of the paths.

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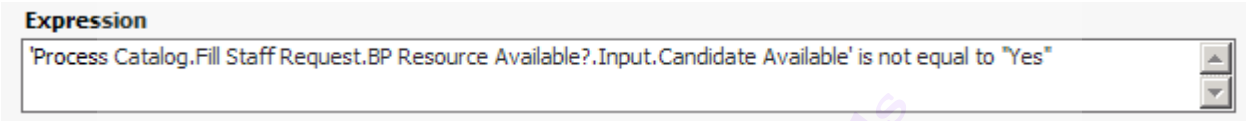
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__ 16. Select the row with condition **No**.



Name	Contents	Condition	Probability (%)
Yes	Output	Yes	70.0
No	Output:2	No	30.0

__ 17. Scroll to the bottom to review the expression for “No” and you will see the following expression.



__ 18. Save your work (Ctrl+S).

__ 19. Select the **BP Resources Available?** decision in the process diagram.

__ 20. In the **Attributes - BP Resources Available?** view, select the **Output branches** tab.

You will see Yes and No output branches.

__ 21. Change the value of Probability (%) to `90` for Yes.

__ 22. Change the value of Probability (%) to `10` for No.

__ 23. Select the row with condition **Yes**.

__ 24. Scroll to the bottom of the **Attributes view** pane and click the **Edit...** button to open the **Expression Builder**.

__ 25. Verify that **Modeling artifact** is selected under the **First term** field.

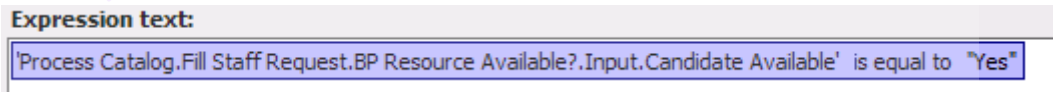
__ 26. In the **First term details**, select **Candidate Available** under **Process Catalog —> Fill Staff Request —> BP Resources available? —> Input.**

__ 27. Select **is equal to** under **Operator**.

__ 28. Select **text** from the **Second term** drop-down list and enter `Yes` as the **Text value**.

__ 29. Click **Apply**.

__ 30. Review and verify the expression under **Expression text.**



__ 31. Click **OK**.

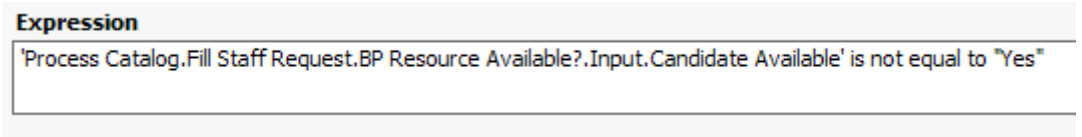
Since this is a simple decision, you will only need to specify the expression for one of the paths.

__ 32. Select the row with condition **No**.

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__ 33. Scroll to the bottom to review the expression for “No” and you will see the following expression.



__ 34. Select the **Can Customer Wait?** decision in the process diagram.

__ 35. In the **Attributes - Can Customer Wait?** view, select the **Output branches** tab.

__ 36. Change the value of Probability (%) to `90` for Yes.

__ 37. Change the value of Probability (%) to `10` for No.

You do not need to define expression for this decision.

__ 38. Save your work (Ctrl+S).

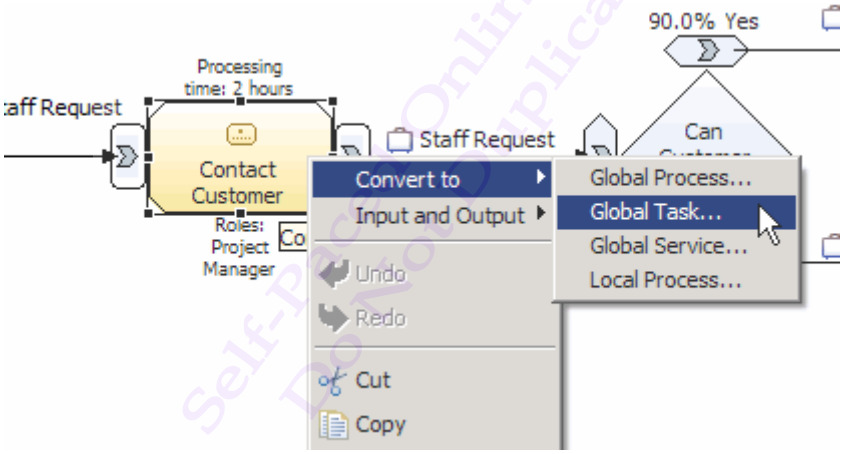
__ 39. Return to the **Error(Filter matched 0 of 0 items)** and verify that there are no errors.

Part 3: Converting local elements to global elements

It is determined that some of the tasks, like **Contact Customer** and **Notify Employee** in this process, should be converted to global tasks which can be reused within the project.

__ 1. Select the **Contact Customer** from the process diagram.

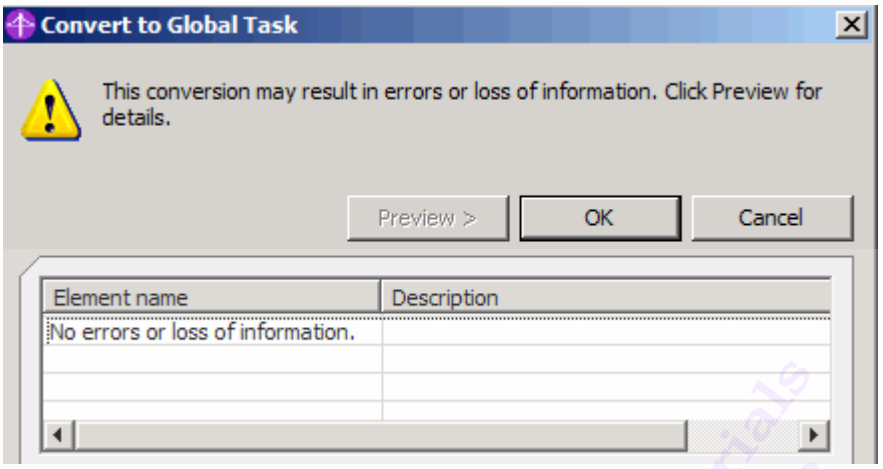
__ 2. Right-click to select **Convert to —> Global Task...**.



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__ 3. Click **Preview** to view the details.

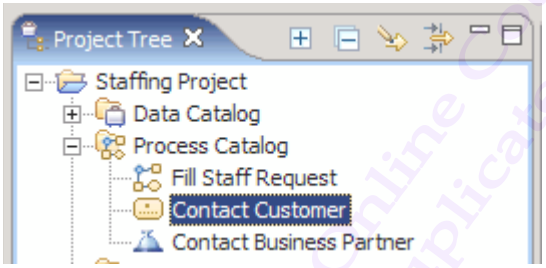


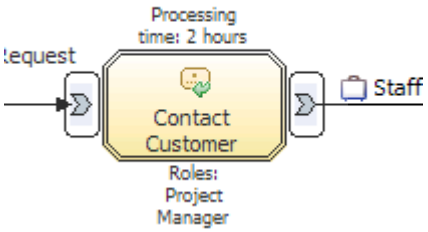
__ 4. Click **OK**.

__ 5. Make sure that **Process Catalog** is selected.

__ 6. Click **Finish**.

Now a global task called Contact Customer appears on your Project Tree and the appearance of the task in the diagram has also been changed.





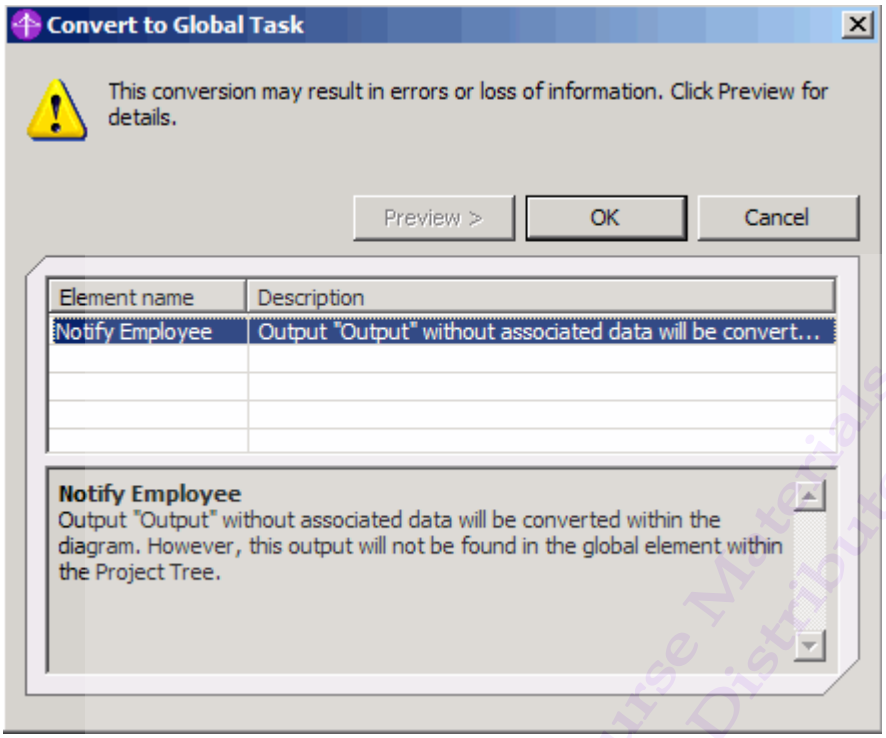
__ 7. Select the **Notify Employee** from the process diagram.

__ 8. Right-click to select **Convert to —> Global Task...**.

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__ 9. Click **Preview** to view the details.


Convert to Global Task
This conversion may result in errors or loss of information. Click Preview for details.
Preview >
OK
Cancel
Element name
Description
Notify Employee
Output "Output" without associated data will be convert...
Notify Employee
Output "Output" without associated data will be converted within the diagram. However, this output will not be found in the global element within the Project Tree.

Note

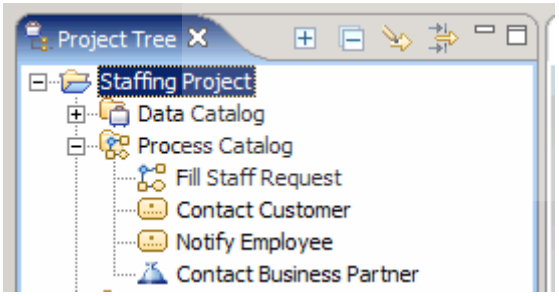
When you convert from local to global elements, it may result in errors or loss of information. For example, if you convert local task to global process, you will lose the resource definition.

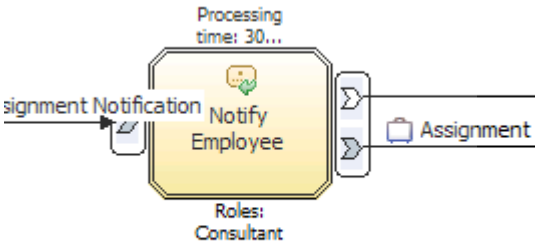
__ 10. Click **OK**.

__ 11. Make sure that **Process Catalog** is selected.

__ 12. Click **Finish**.

Now both the **Contact Customer** and **Notify Employee** appear on your Project Tree and the appearance of the global task in the diagram has also been changed.





__ 13. Save your work (Ctrl+S).

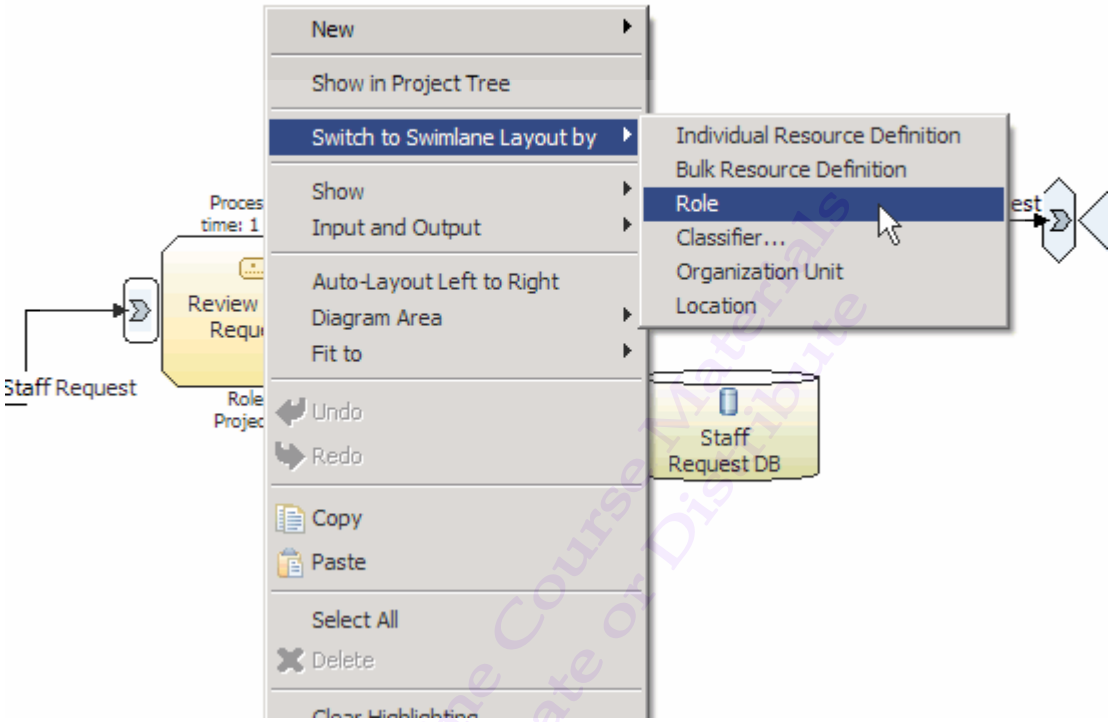
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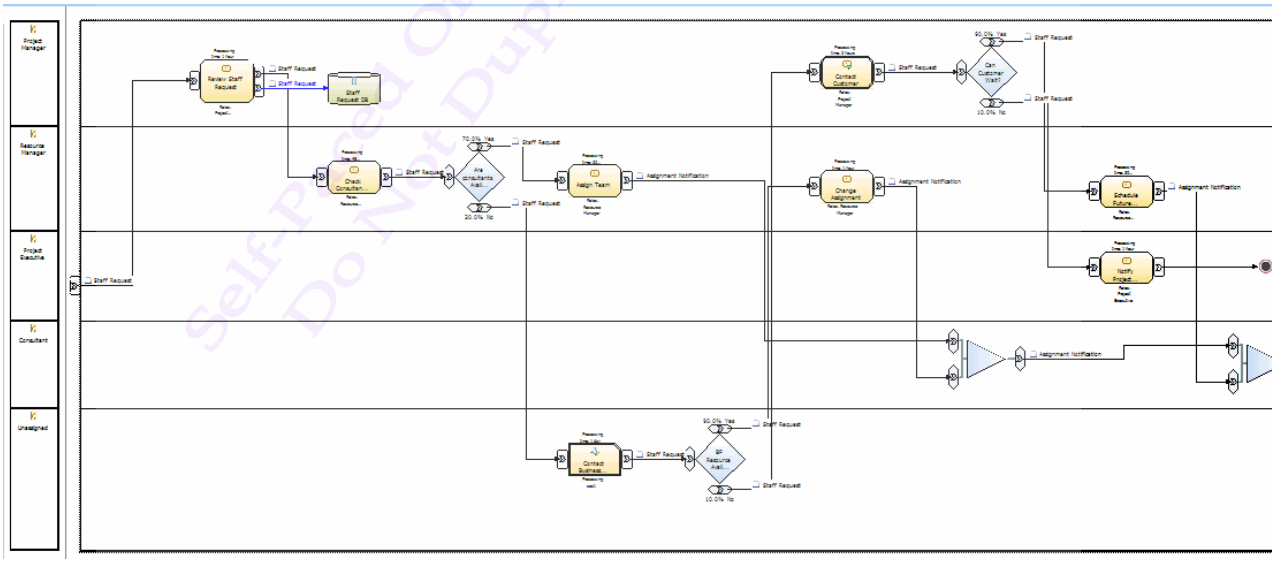
Part 4: Switching to swimlane layout

__ 1. Open the **Fill Staff Request** process from the Project Tree if not already open.

__ 2. Right-click the background of the diagram, and select Select **Switch to Swimlane Layout by —> Role**.



The diagram will be displayed in swimlane form as below:



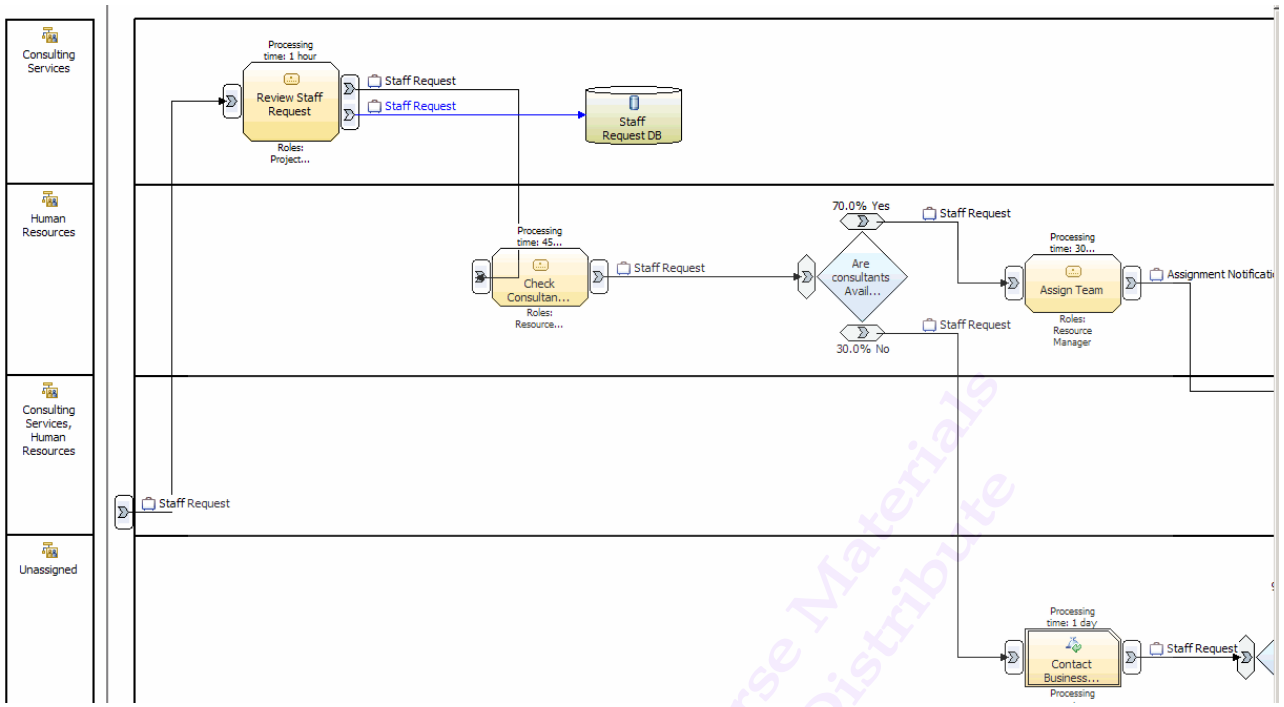
You can also display by organization units.

__ 3. Right-click the background of the diagram, and select Select **Switch to Swimlane Layout by —> Organization Unit**.

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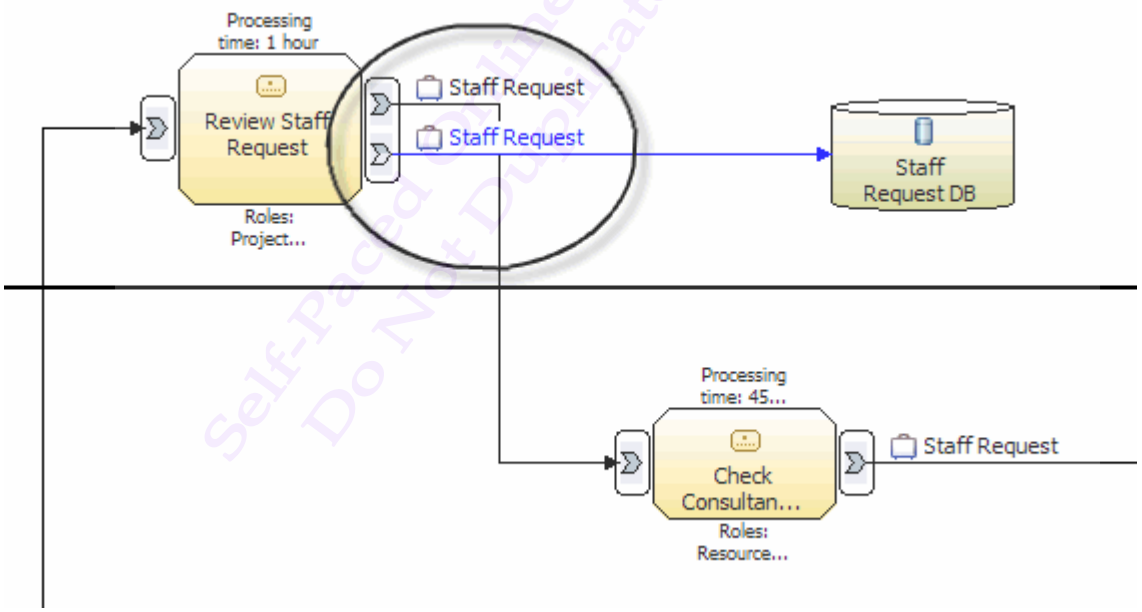
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The diagram will be displayed in swimlane form as below:



As you switch between different swimlane view, some of the connections can overlap each other. You can modify the order of the connection in order to display them nicely.

The output connections of Review Staff Request have overlapped.

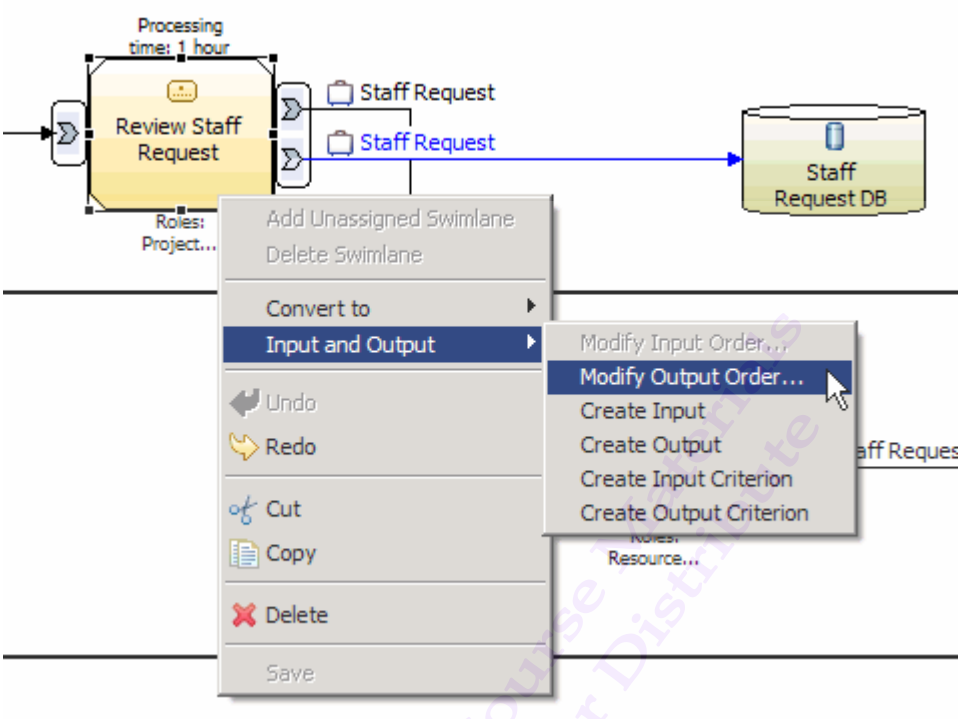


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__ 4. Right-click the Review Staff Request and select **Input and Output —> Modify Output Order...**.

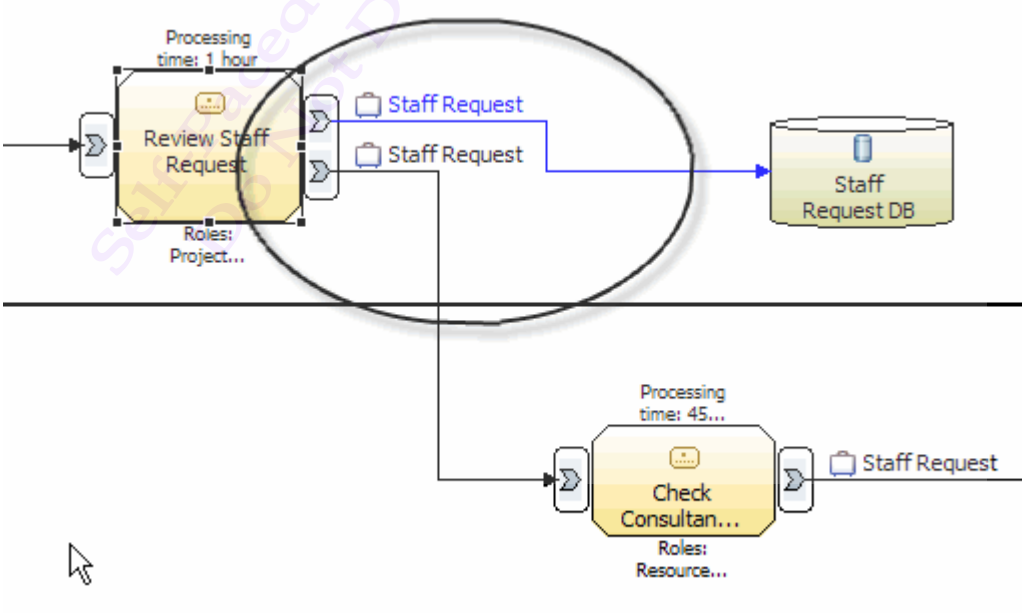


__ 5. Select **Output: Staff Request** from the list.

__ 6. Click **Move Down**.

__ 7. Click **OK**.

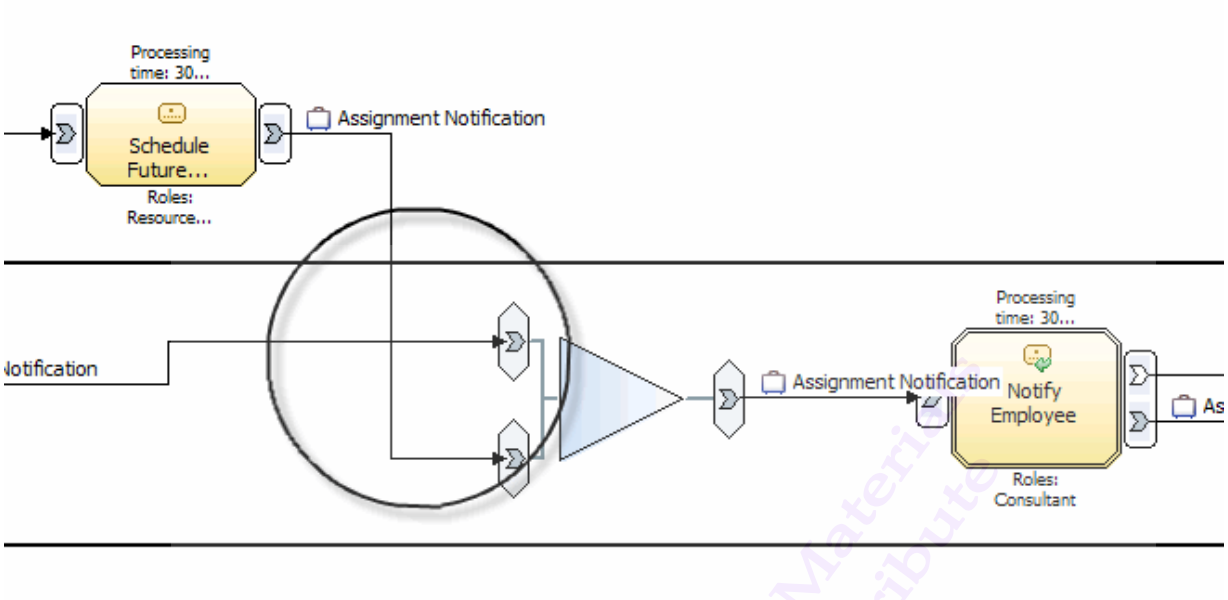
The connections have been modified as below:



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__ 8. Repeat the previous steps to correct the overlapping connections for the merge.

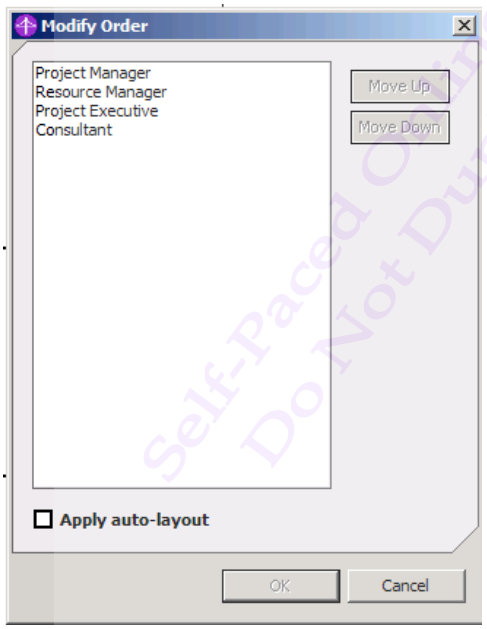


__ 9. Switch back to the swimlane layout by roles.

__ 10. You can change the order of the swimlanes.

__ 11. Right-click the background of the diagram, and select **Change Swimlane Order...**

The **Modify Order** window displays.



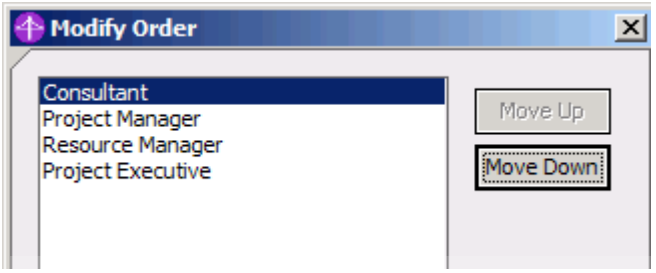
__ 12. Select **Consultant** from the list.

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__ 13. Click **Move Up** to move the Consultant to the top of the list.

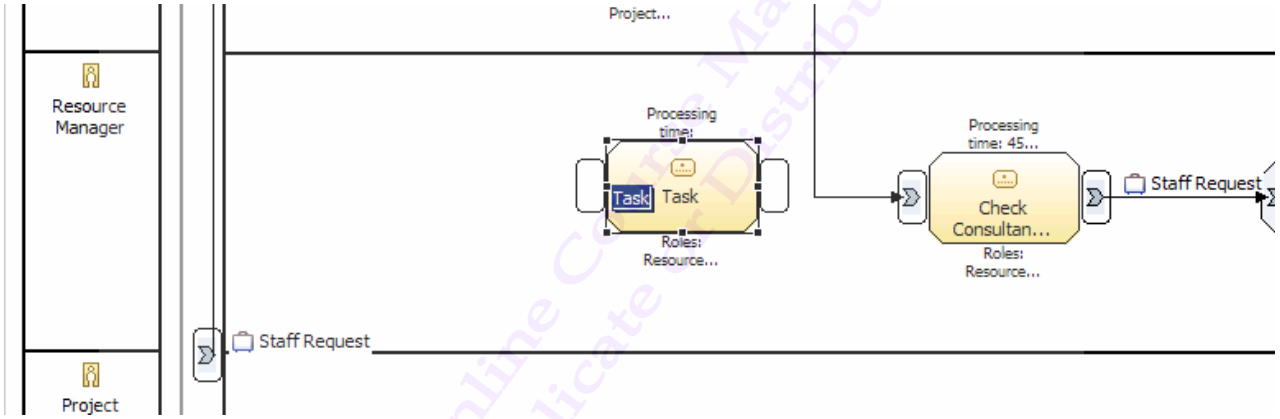


__ 14. Click **OK**.

Now the Consultant swimlane will be displayed on the top.

__ 15. Now you will add a new task called **Identified Qualified Resources** to the diagram, and this task will be performed by the **Resource Manager** role.

__ 16. Click and drop a local task onto the **Resource Manager** swimlane as below:

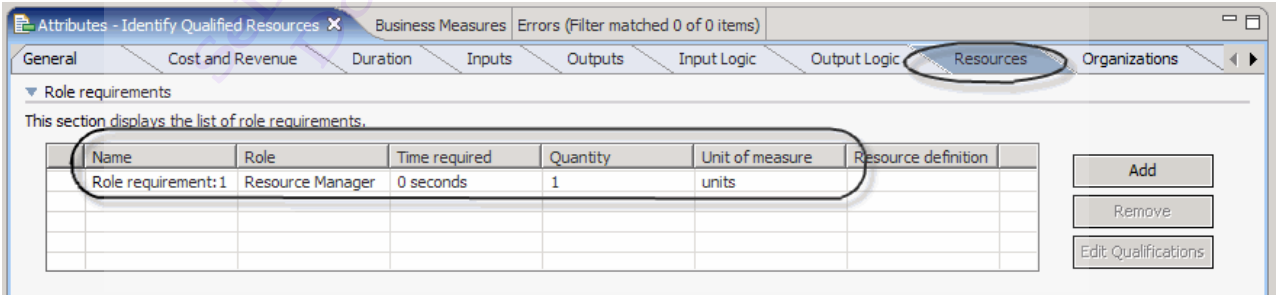


__ 17. Name the task `Identified Qualified Resources`.

__ 18. When in swimlane form, the resource definition for the task will be automatically assigned to the associated resource requirement.

__ 19. Click the **Resource** tab in the **Attributes** pane.

The role requirement has been defined by default from the swimlane.



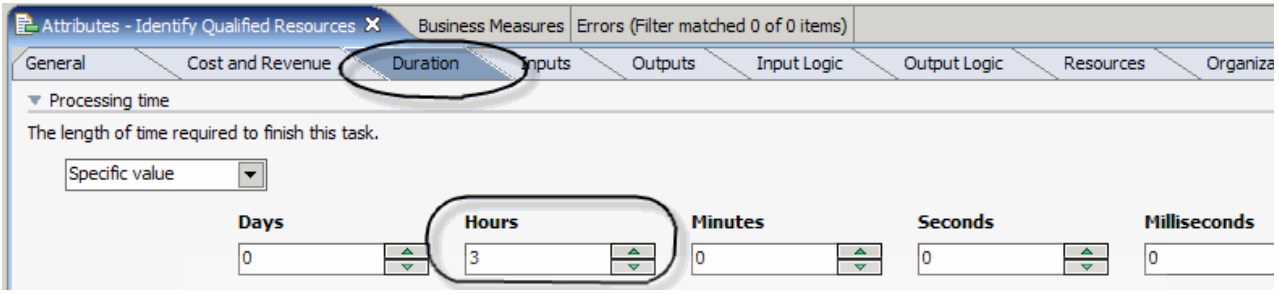
__ 20. Enter the following information for the role requirement:

Name	Role	Time required	Quantity	Unit of measure	Resource definitio
Role requirement: 1	Resource Manager	2 hours	1	units	Person

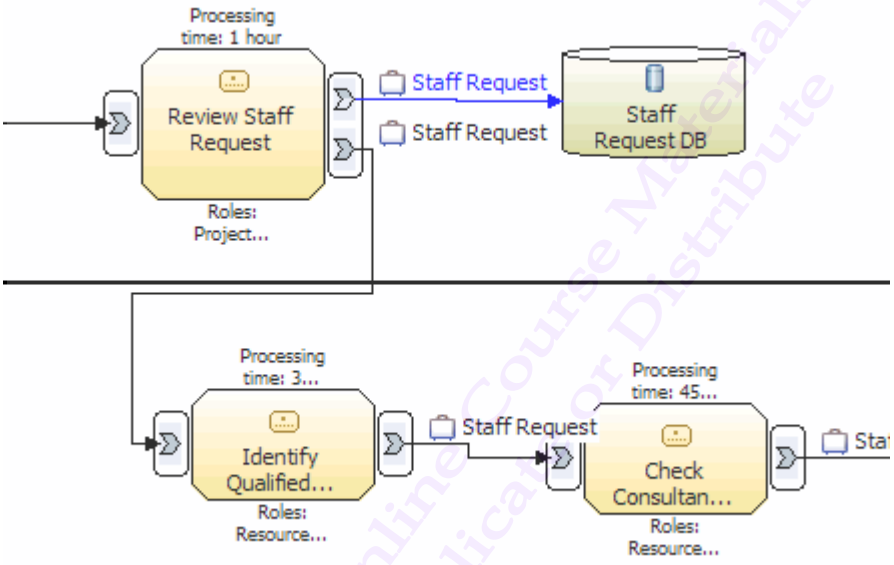
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__ 21. Select the **Duration** tab and enter the following information:



__ 22. Connect the **Identified Qualified Resources** with the other tasks as below:



__ 23. Right-click the background of the diagram, and select **Switch to Free-Form Layout.**

__ 24. Click **Yes** to save the changes.

__ 25. Right-click the background of the diagram, and select **Auto-Layout Left to Right.**

__ 26. Press **Crtl+S** to save.

Part 5: Adding URL to description

If a description field in an editor or in the Attributes view has a link to a URL or to a file, anyone reading the description can open the link and immediately view the referenced content.

__ 1. Click a white space in the process diagram.

__ 2. In the **Attributes** pane, select the **General** tab.

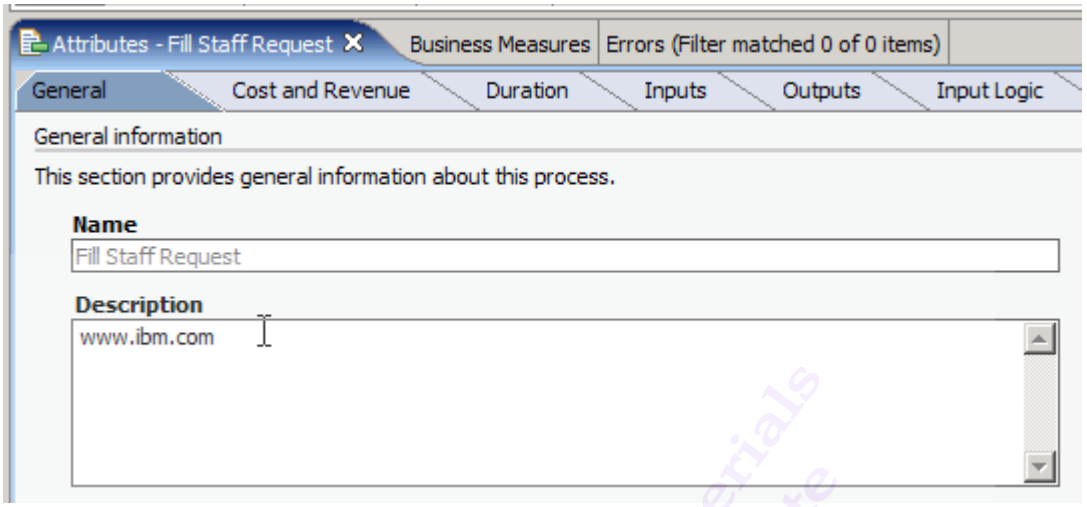
__ 3. Enter `www.ibm.com` in the description field.

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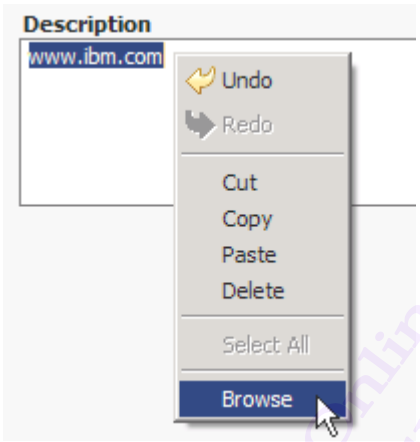
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Note: The URL must be lower case.



__ 4. To view the link, highlight the text, right-click, and click **Browse**.



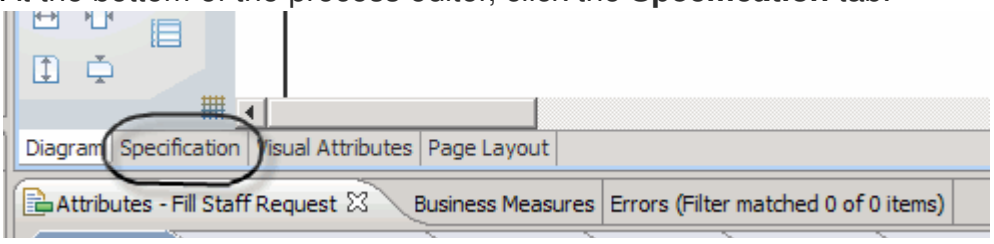
A browser opens, and you will be directed to the link you selected. Note that the Internet connection must be available to view the Web site.

__ 5. Close the browser when you are finished.

__ 6. Save the process (Ctrl+S).

Part 6: Attaching a file to the process

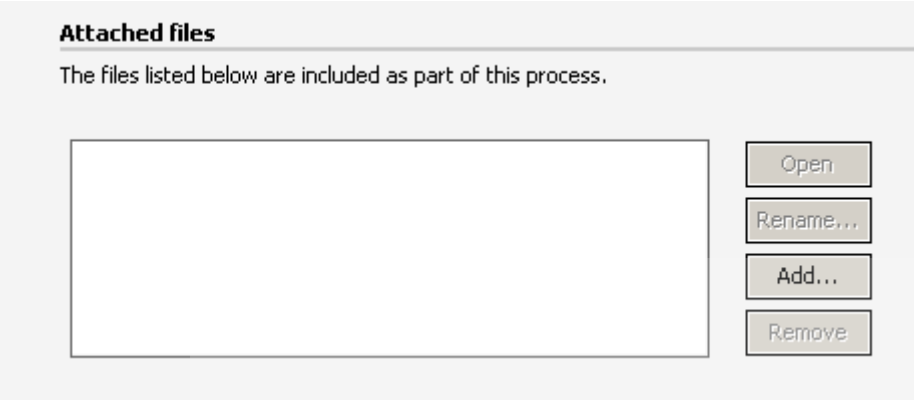
__ 1. At the bottom of the process editor, click the **Specification** tab.



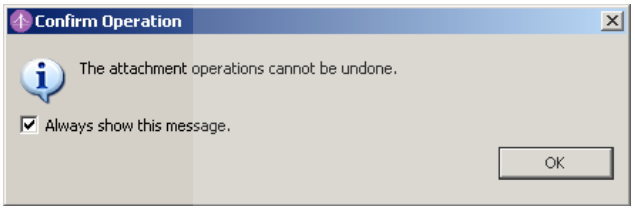
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__ 2. Under **Attached files**, click the **Add** button.



The **Confirm Operation** dialog box appears.



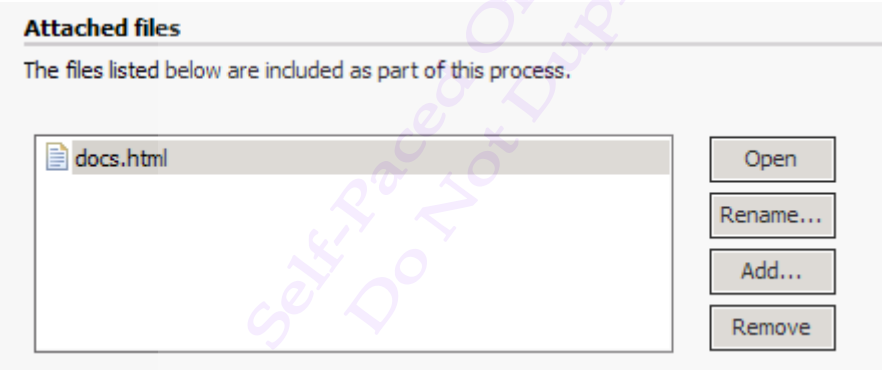
__ 3. Clear the **Always show this message** check box and click **OK**.

The **Choose file** window appears.

__ 4. Navigate to `C:\Program Files\IBM\WebSphere\Modeler6`, and select **docs.html**.

__ 5. Click **Open**.

__ 6. An entry labeled `docs.html` appears in the field under **Attached files**.



__ 7. Click **Open**.

The docs.html will be displayed on a browser.

Note

Files of any format, for example, pdf, Word document or Excel spreadsheet, can be attached.

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__ 8. Close the browser when you are finished.

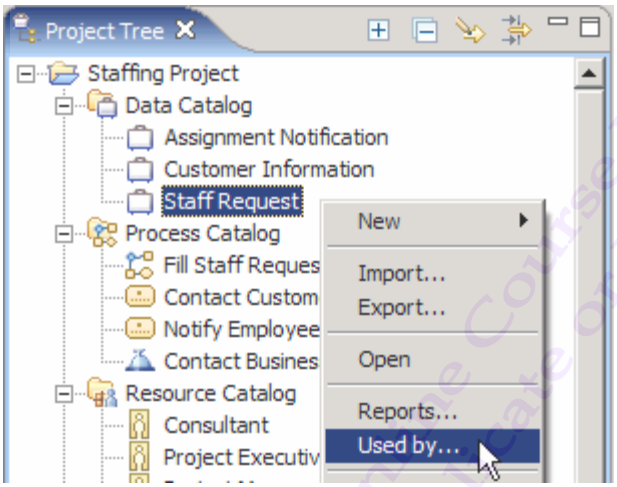
__ 9. Save the changes (**Ctrl+S**).

__ 10. Select the **Diagram** tab to return to the process diagram.

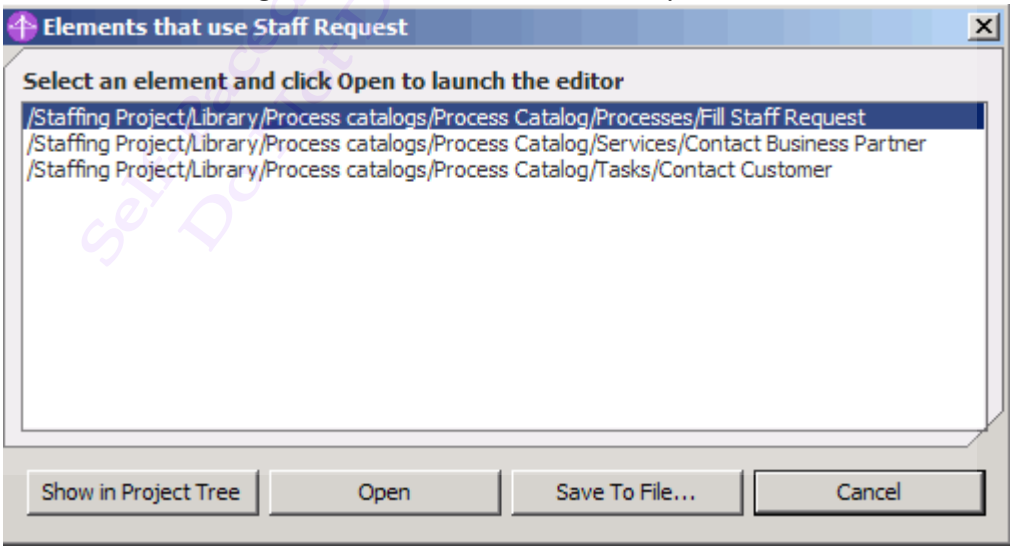
Part 7: Using search and used by functions

You can now review where a global element is used. This function can help you understand how deleting an object will affect the project. This function can also help you to identify where a global element was being used across the project.

__ 1. To find out where the business item **Staff Request** is used, from the Project Tree, under **Staffing Project —> Data Catalog,** right-click **Staff Request** to select **Used by...**.



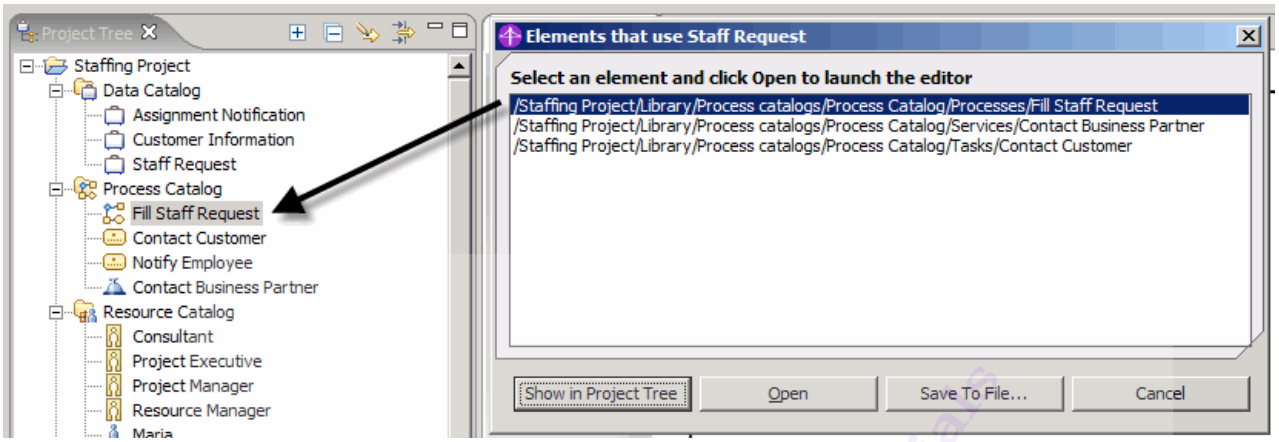
The Used by results will display as follows, and if the **Staff Request** was deleted or modified, then the following business items, tasks, and processes would be affected.


Elements that use Staff Request
Select an element and click Open to launch the editor
/Staffing Project/Library/Process catalogs/Process Catalog/Processes/Fill Staff Request
/Staffing Project/Library/Process catalogs/Process Catalog/Services/Contact Business Partner
/Staffing Project/Library/Process catalogs/Process Catalog/Tasks/Contact Customer
Show in Project Tree
Open
Save To File...
Cancel

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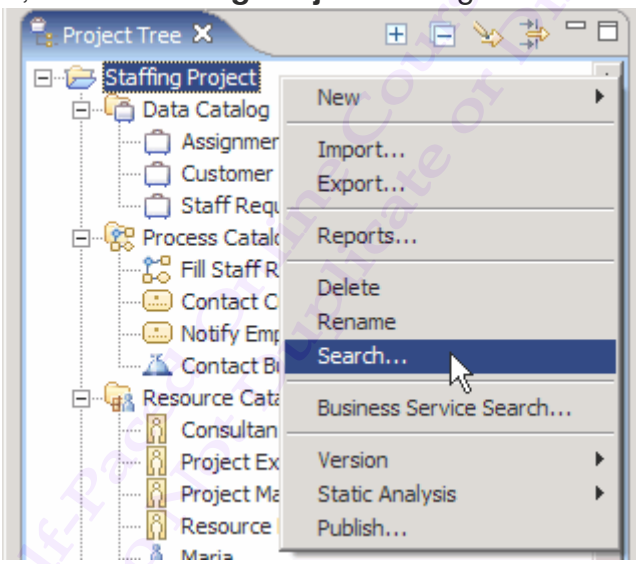
__ 2. Click the **Show in Project Tree** button to locate the process in the Project Tree.



__ 3. Click **Cancel**.

You can search by name for elements in the Project Tree. When carrying out a search, you can use the asterisk (*) as a wildcard character.

__ 4. To search any elements that contain the word "`customer`" within the project, from the Project Tree, select **Staffing Project** and right-click to select **Search...**.

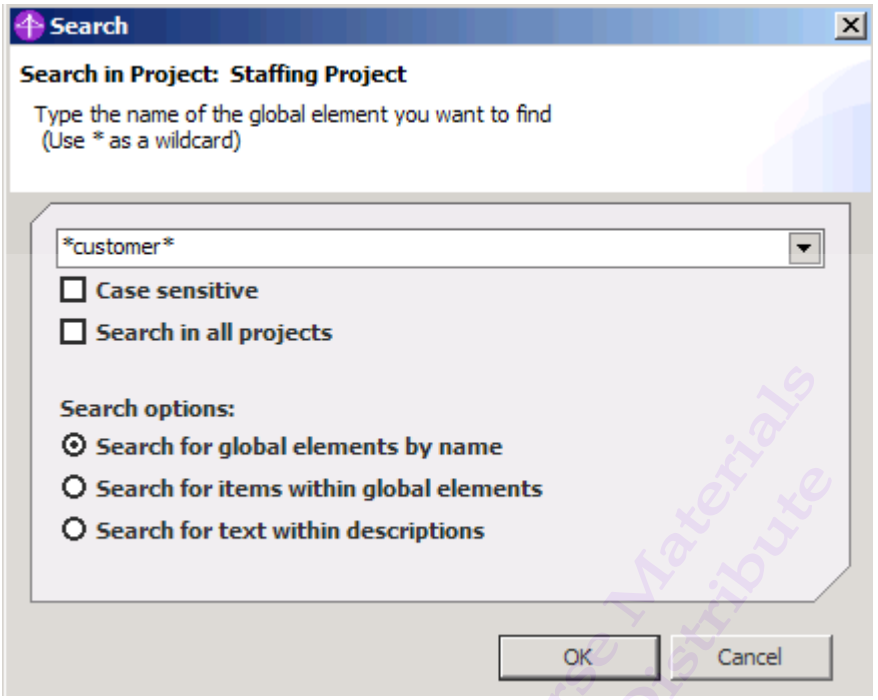


The **Search** window displays.

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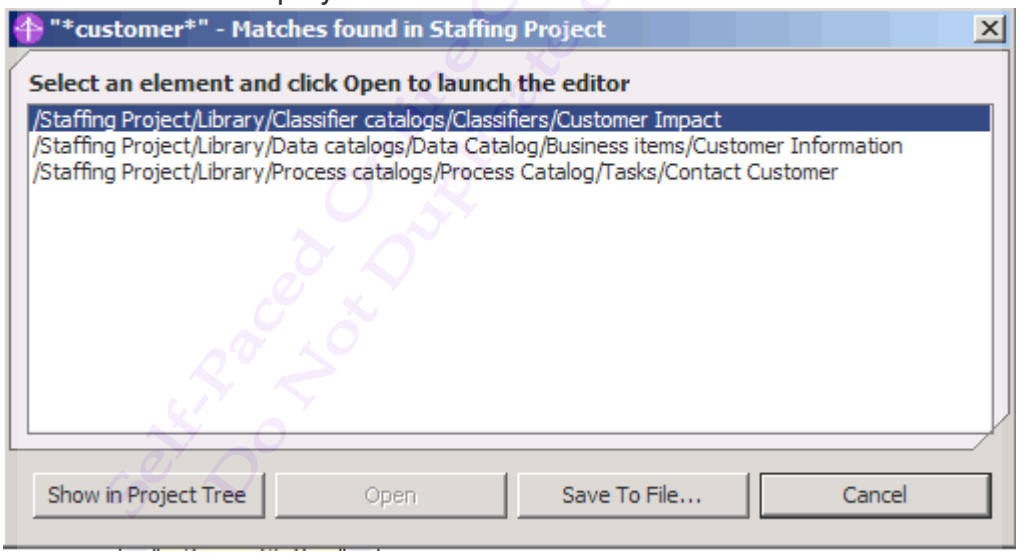
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__ 5. Enter `*customer*` as the name to search for, and clear the **Case sensitive** box.



__ 6. Click **OK**.

The search results will display as follows:


"*customer*" - Matches found in Staffing Project
Select an element and click Open to launch the editor
/Staffing Project/Library/Classifier catalogs/Classifiers/Customer Impact
/Staffing Project/Library/Data catalogs/Data Catalog/Business items/Customer Information
/Staffing Project/Library/Process catalogs/Process Catalog/Tasks/Contact Customer
Show in Project Tree
Open
Save To File...
Cancel

__ 7. Select /**Staffing Project**/**Library**/**Process catalogs**/**Process Catalog**/**Tasks**/**Contact Customer** from the list.

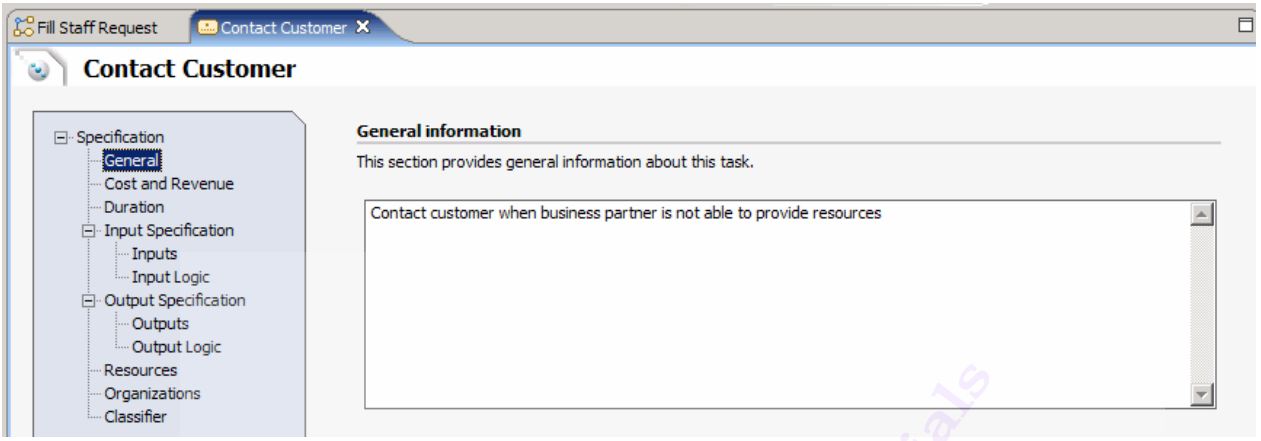
__ 8. Click **Open.**

__ 9. Click **Cancel** to close the search results window.

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Now the **Contact Customer** editor displays.



__ 10. Close the **Contact Customer** editor.

__ 11. Exit Modeler (**File** —> **Exit**).

You may play the flashcard game after completion of the lab exercise.

Part 8: Review questions

Your instructor will review the following questions with you.

__ 1. What is the advantage of displaying a process diagram in swimlane layout?

_____

__ 2. What is the relationship between a local process and a subprocess?

_____

__ 3. In which loop does it repeat while some condition is satisfied, and it tests its condition at the end of the loop?

_____

__ 4. If a multiple-choice decision has one or more outcomes, how and where in Modeler do you specify?

_____

__ 5. What types of attachments can be added to the process model?

_____

END OF EXERCISE

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Exercise 7. Model validation and static analysis

What this exercise is about

This lab will provide hands-on experience in model validation and static analysis in WebSphere Business Modeler.

What you should be able to do

At the end of the lab, you should be able to:

- Validate the model
- Perform static analysis

Requirements

Previous labs should be completed successfully.

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Exercise instructions

Part 1: Opening workspace

__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Browse to **C:\ClassWorkspaces\Lab7**.

__ 3. Click **OK**.

Part 2: Using static analysis from process editor

Sometimes when you have a complex model, it is difficult to detect if there is any task or process which has a missing connection, or has a process path which it is not able to follow.

To make sure that your process diagram has no activities (task, process or service) that are unable to start or have missing connections, you can use the static analysis from the process editor.

Activities unable to start analysis return a list of the activities of the process that cannot start because of problems with their input criteria or with the size of their resource or role requirements.

Creating a valid process is important for simulation and for accurate communication. If there are activities within a model that will never start, you need to be aware of this fact. This analysis is important for any large process model that is being created.

If you complete this analysis and determine from it that one or more activities are modeled in such a way that they are unable to start, you can then make changes to the model to ensure that the deficiency is corrected.

An activity will not start if one of the following conditions is true:

Each input criterion of the activity is found not to be valid for one of the following reasons:

- No inputs are specified.
- One of the inputs of the input criterion does not have an incoming connector (excluding inputs whose input source is a repository or constant value).

The quantity of required resources or roles is not available.

__ 1. From the Project Tree, navigate to **Staffing Project** —> **Process Catalog** and double-click **Fill Staff Request** to open the process editor.

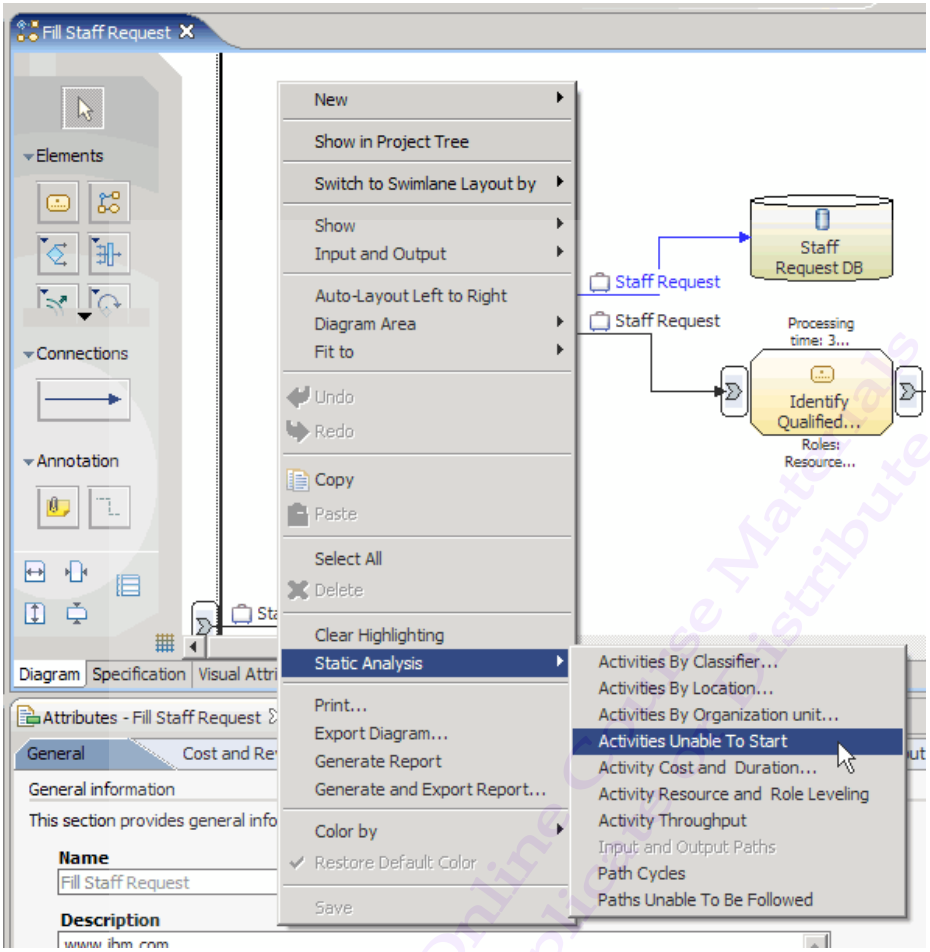
__ 2. Make sure that the process is in **Intermediate** mode.

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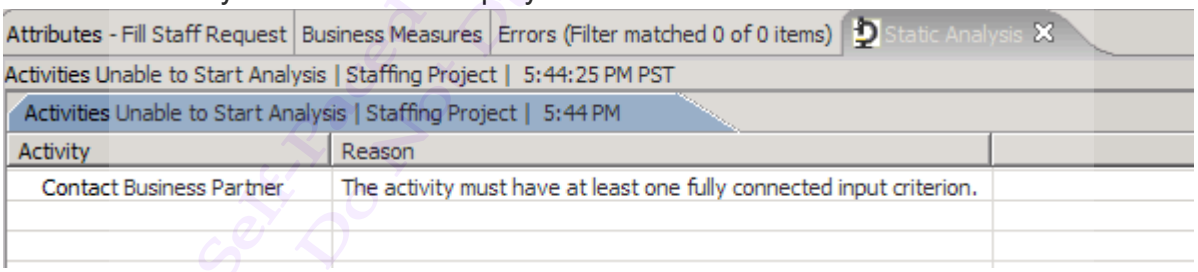
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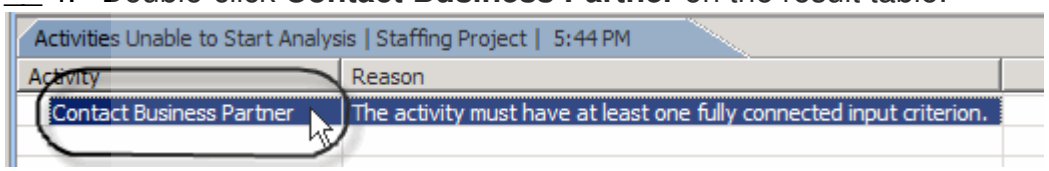
__ 3. In the **process editor** pane, right-click the background of the process diagram and select **Static Analysis —> Activity Unable to Start** from the context menu.



The Static Analysis results will display below:


Attributes - Fill Staff Request
Business Measures
Errors (Filter matched 0 of 0 items)
Static Analysis
Activities Unable to Start Analysis | Staffing Project | 5:44:25 PM PST
Activities Unable to Start Analysis | Staffing Project | 5:44 PM
Activity
Reason
Contact Business Partner
The activity must have at least one fully connected input criterion.

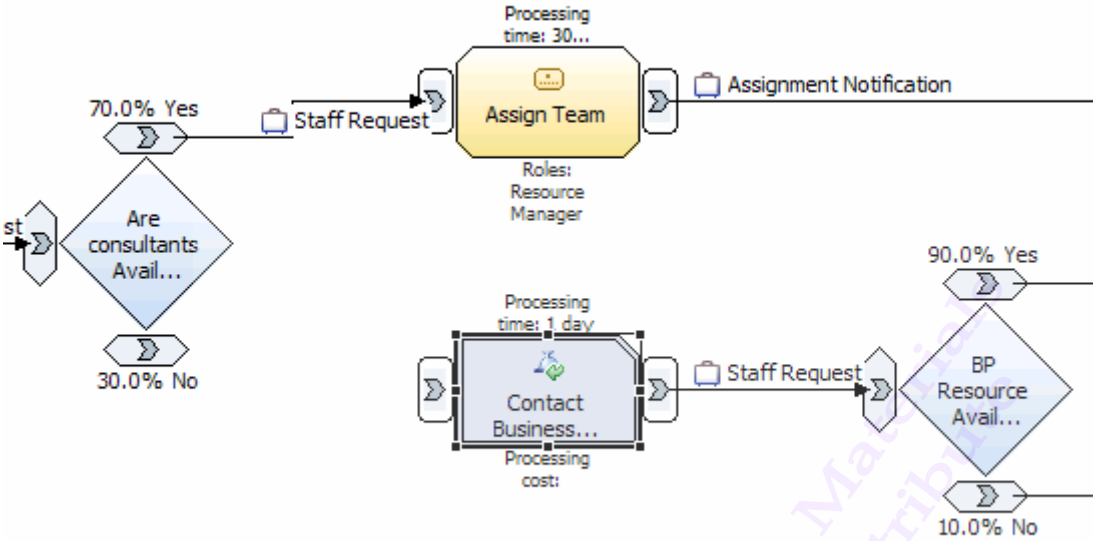
__ 4. Double-click **Contact Business Partner** on the result table.


Activities Unable to Start Analysis | Staffing Project | 5:44 PM
Activity
Reason
Contact Business Partner
The activity must have at least one fully connected input criterion.

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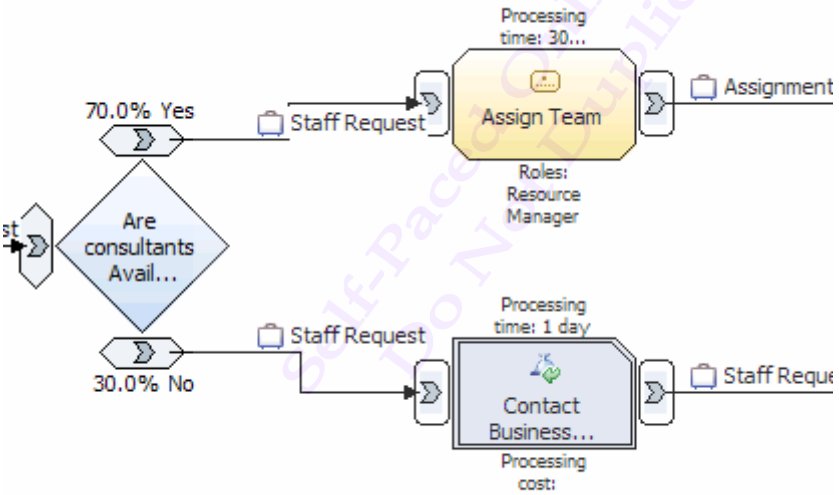
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Once you click, the process editor will highlight the selected task and display it in the middle of the editor, so that you can investigate and correct the problem.



There is a missing connection from the output branch of "**No**" and the **Contact Business Partner** services.

__ 5. Connect the output branch of "**No**" to the **Contact Business Partner** services as below:



__ 6. Press Ctrl+S to save.

__ 7. Right-click the **Static Analysis** tab in lower right pane and select **Close**.

Now you will check to see if there is any path in the process that was unable to follow.

__ 8. In the **process editor** pane, right-click the background of the process diagram and select **Static Analysis —> Activity Unable to Start** from the context menu.

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There is no activity listed on your result table.

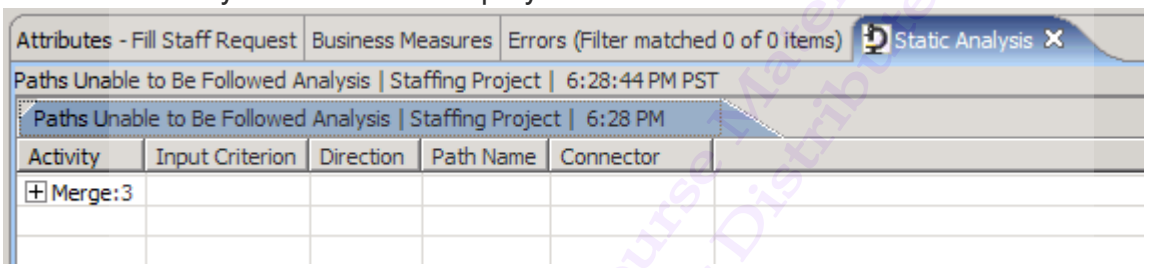
Paths unable to be followed analysis returns a list of the paths within the process that cannot be followed because of an invalid input criterion on an activity in the path.

An input criterion can stop the path of the process flow from being followed for one of the following reasons:

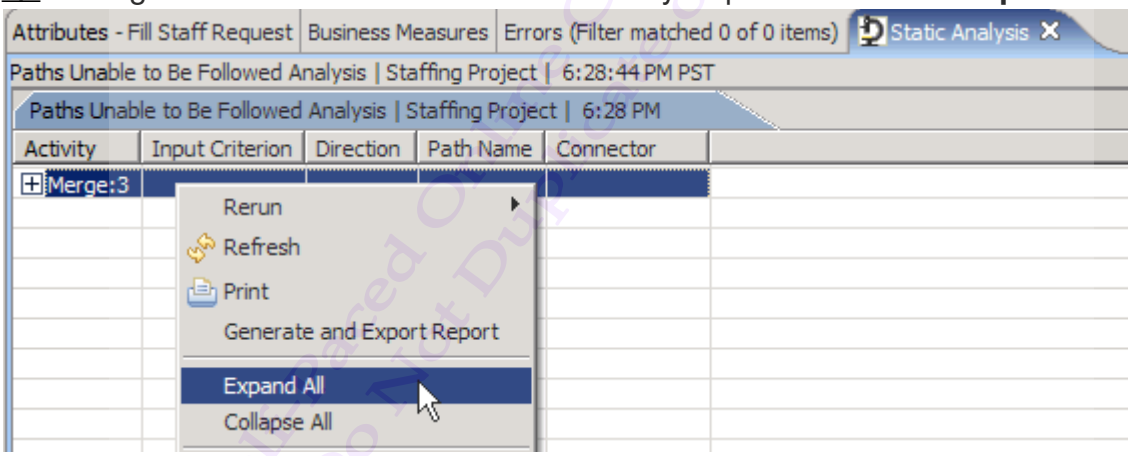
- No inputs are specified for the criterion
- One of the inputs of the input criterion does not have an incoming connector (excluding inputs whose input source is a repository or constant value)

__ 9. In the **process editor** pane, right-click the background and select **Static Analysis —> Path Unable to Be Followed** from the context menu.

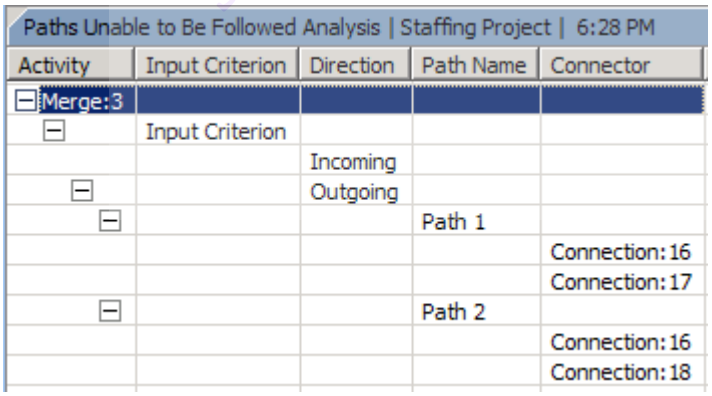
The Static Analysis results will display below:


Attributes - Fill Staff Request
Business Measures
Errors (Filter matched 0 of 0 items)
Static Analysis
Paths Unable to Be Followed Analysis | Staffing Project | 6:28:44 PM PST
Paths Unable to Be Followed Analysis | Staffing Project | 6:28 PM
Activity
Input Criterion
Direction
Path Name
Connector
Merge:3

__ 10. Right-click the result table in Static Analysis pane and select **Expand All**.



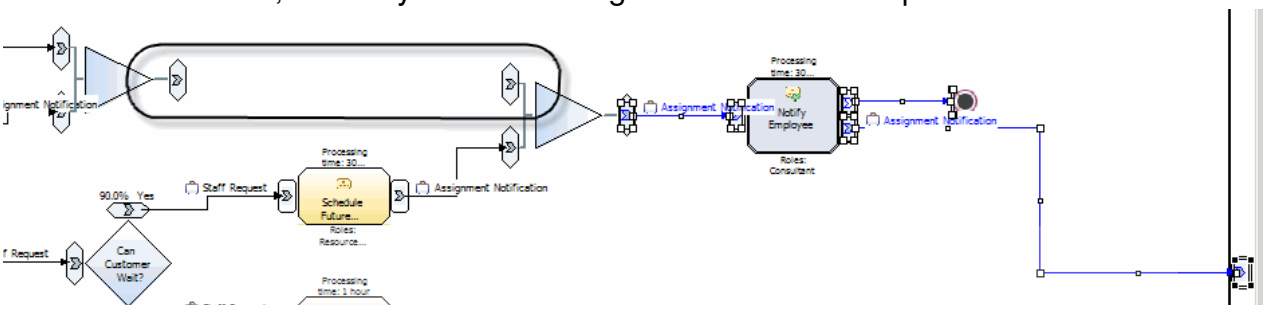
__ 11. You will see all the information about this merge.



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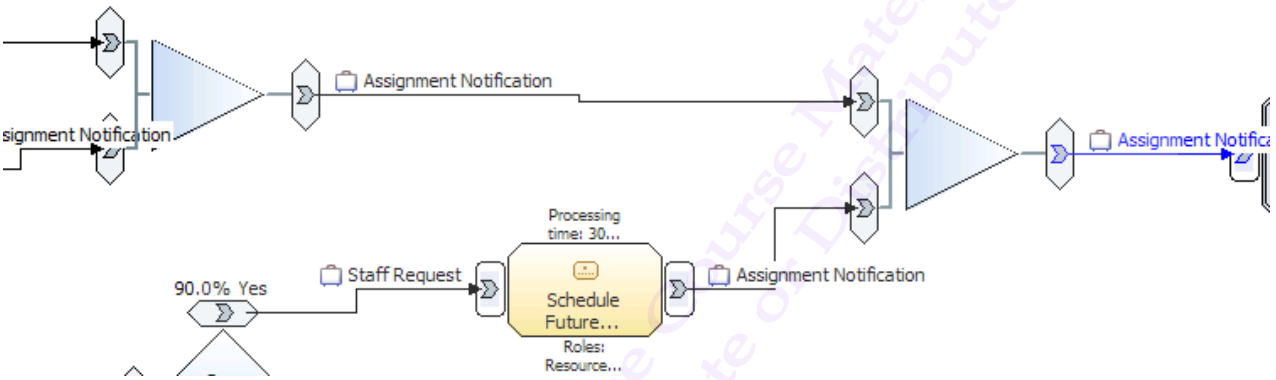
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Once it is expanded, the process editor will highlight the selected task and display it in the middle of the editor, so that you can investigate and correct the problem.



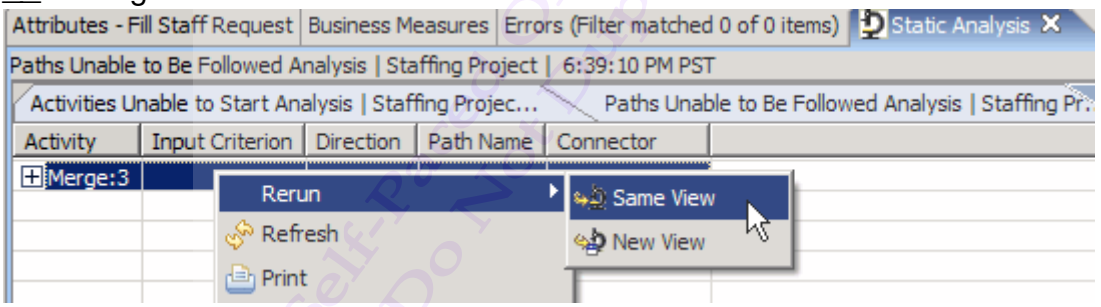
There is a missing connection between the merges.

__ 12. Connect the merges as below:



__ 13. Press **Ctrl+S** to save.

__ 14. Right-click the result table and select **Rerun —> Same view**.



There is no activity listed on your result table.

__ 15. Right-click the **Static Analysis** tab and select **Close**.

Part 3: Generating activity cost and duration analysis

Activity cost and duration analysis returns the cost of each activity as a sum of the average costs of the allocated resources. It also computes the total working duration of the allocated resources of each activity, and the minimum working duration of the activity.

This analysis helps you to identify which activities have the potential of costing the most and taking the longest to complete. This enables you to focus attention on possible cost savings and time saving opportunities.

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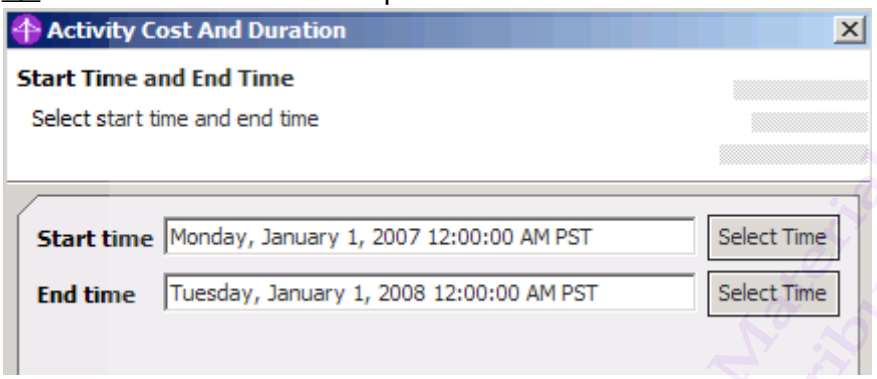
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Note: Requirements for resource definitions are not considered in this analysis.

Note: If an activity's processing cost, startup cost, or processing time are specified as distributions, this analysis will not evaluate the values. Distribution is used by simulation.

__ 1. In the **process editor** pane, right-click the background of the process diagram and select **Static Analysis —> Activity Cost and Duration** from the context menu.

__ 2. Click **Finish** to accept the default start and end time.


Activity Cost And Duration
Start Time and End Time
Select start time and end time
Start time
Monday, January 1, 2007 12:00:00 AM PST
Select Time
End time
Tuesday, January 1, 2008 12:00:00 AM PST
Select Time

The analysis results display in the bottom-right pane:

Attributes - Fill Staff Request | Business Measures | Errors (Filter matched 0 of 0 items) | Static Analysis

Activity Cost and Duration Analysis | Staffing Project | 6:44:46 PM PST

Activity Cost and Duration Analysis | Staffing Project | 6:44 PM

Activity	Cost	Allocated Resources Total Working Duration	Activity Minimum Working Duration	No
Assign Team	$0.00	30 minutes	30 minutes	
Change Assignment	$0.00	30 minutes	1 hour	
Check Consultant Availability	$0.00	30 minutes	45 minutes	
Contact Business Partner	$0.00	0 seconds	0 seconds	
Contact Customer	$0.00	1 hour	0 seconds	
Identify Qualified Resources	$0.00	2 hours	3 hours	
Notify Employee	$0.00	15 minutes	0 seconds	
Notify Project Executive	$0.00	15 minutes	1 hour	
Review Staff Request	$0.00	1 hour	1 hour	
Schedule Future Assignment	$0.00	30 minutes	30 minutes	

Note that these values were assigned during the previous labs.

__ 3. Right-click the **Static Analysis** tab and select **Close**.

Part 4: Generating activities by classifier analysis

Activities by classifier analysis returns the activities of the process that are associated with each classifier value of selected classifiers.

Use this analysis to gain an understanding of which activities share common classifier values and help you to focus on those activities that have a common quality or behavior. For example, if your focus is to eliminate manual tasks, you can use this analysis to isolate those tasks that are manual from those that are automated.

Processes are multidimensional in nature and understanding the process from a specific dimension or classification enables you to dissect and evaluate the process with increased ease. In the process, you can use the Value added classifier to categorize activities under

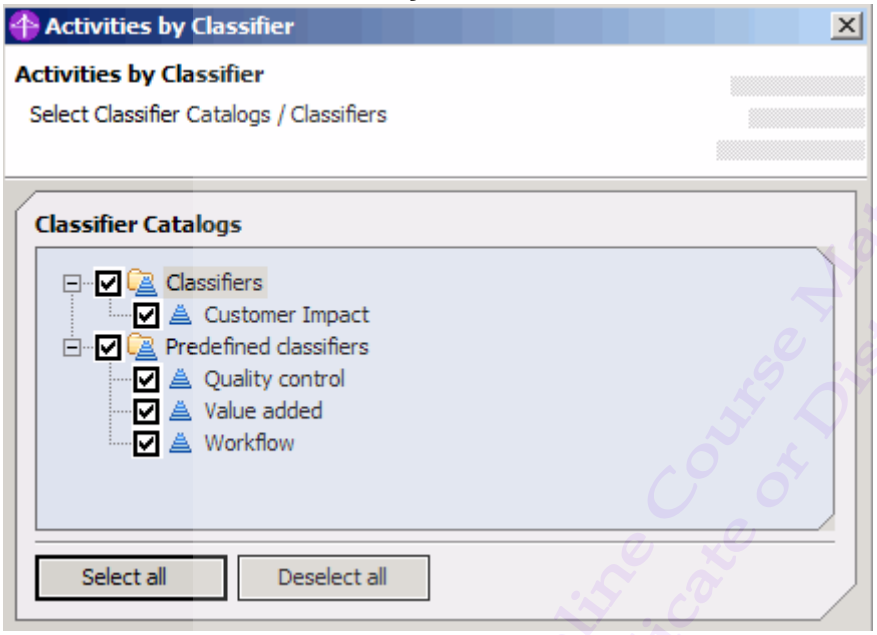
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the values Business value added, Real value added, and No value added. When you run this analysis, you can see the activities associated with each of these three values. Alternatively, if you create your own classifier and classifier values to categorize activities that send or receive data to or from the global repositories in your project, you can then use this analysis to display which activities are associated with each repository.

__ 1. Right-click the background of the process diagram and select **Static Analysis** —> **Activities by Classifier**.

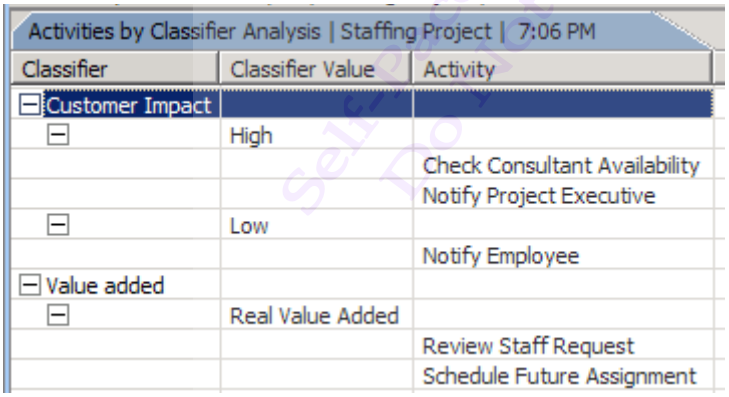
__ 2. From the **Activities by Classifier** window, click **Select all.**



__ 3. Click **Finish**.

Analysis results appear in the Analysis view.

__ 4. Right-click the result table and select **Expand all**:



The activities by classifier analysis returns the activities of the process that are associated with each classifier value of selected classifiers.

__ 5. Right-click the **Static Analysis** tab and select **Close**.

Part 5: Generating activities by organization unit analysis

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Activities by organization unit analysis returns the activities of the process that are performed by each organization unit.

Use this analysis to gain a picture of which activities are carried out by which organization units.

Understanding activity distribution by organization unit enables you to determine the relative contribution to the process of each organization unit. For example, if you find that a particular organization unit is responsible for a large number of the activities, then you can take action to ensure that funding is directed appropriately, or tasks moved to more evenly distribute the workload across the units.

__ 1. In the **process editor** pane, right-click the background of the process diagram and select **Static Analysis —> Activities by Organization Unit** from the context menu.

__ 2. From the **Activities by Organization Unit** window, click **Select all.**

__ 3. Click **Finish**.

Analysis results appear in the Analysis view.

__ 4. Right-click the result table and select **Expand all**:

Activities By Organization unit Analysis | Staffing Project | 7:08 PM

Organization Unit	Activity
Consulting Services	
	Review Staff Request
	Notify Project Executive
	Notify Employee
Human Resources	
	Check Consultant Availability
	Assign Team
	Schedule Future Assignment
	Notify Employee

__ 5. Right-click the **Static Analysis** tab and select **Close**.

Part 6: Generating for resource availability analysis

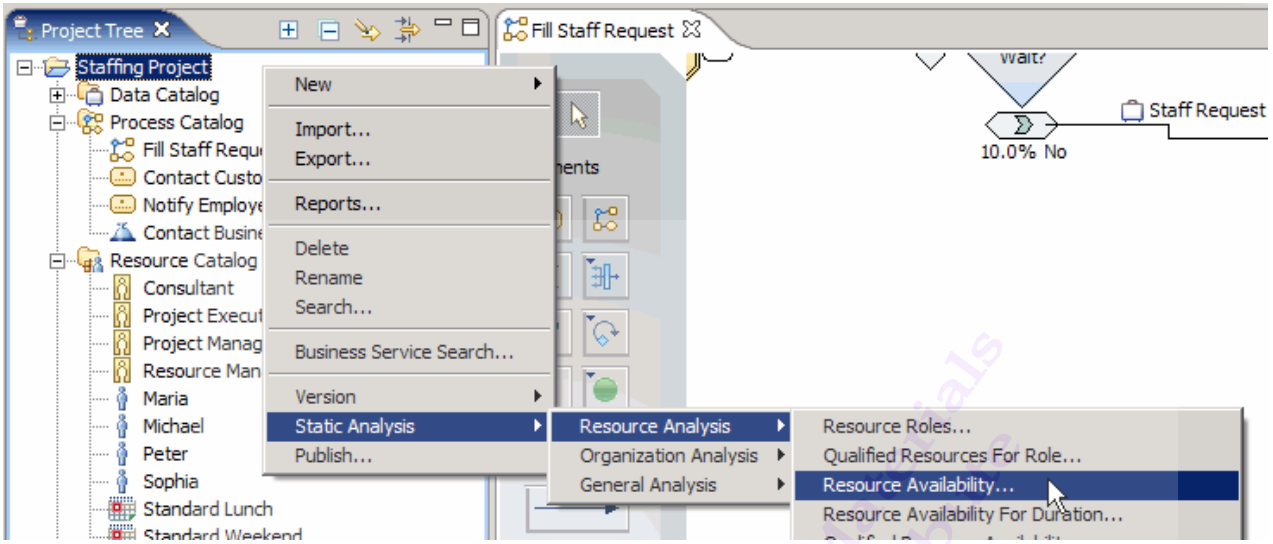
Resource availability analysis determines the periods during which a selected resource is available, beginning and ending with times that you specify.

The availability of a resource is identified by the intervals specified in its availability timetable, after excluding the exempted periods and considering the validity periods.

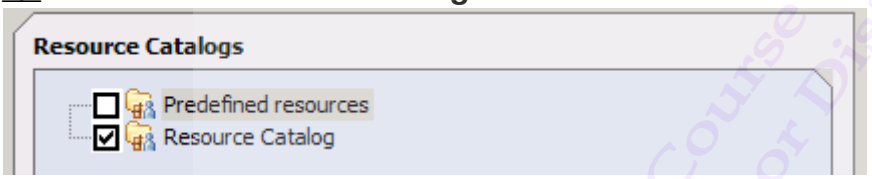
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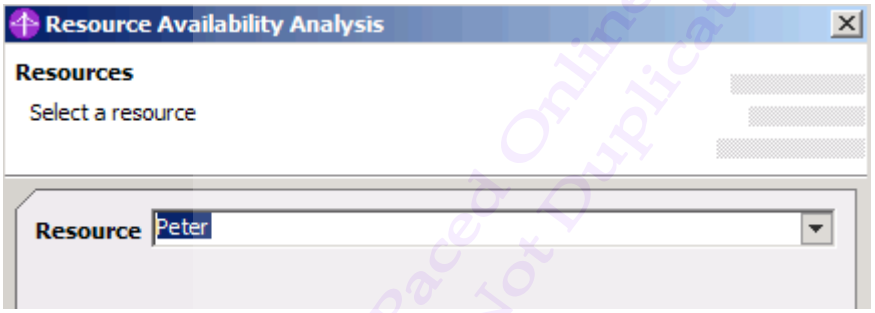
__ 1. Right-click **Staffing Project** in the Project Tree and select **Static Analysis —> Resource Analysis —> Resource Availability**.



__ 2. Select **Resource Catalog** and click **Next**.



__ 3. Select **Peter** from the **Resource** drop-down list.



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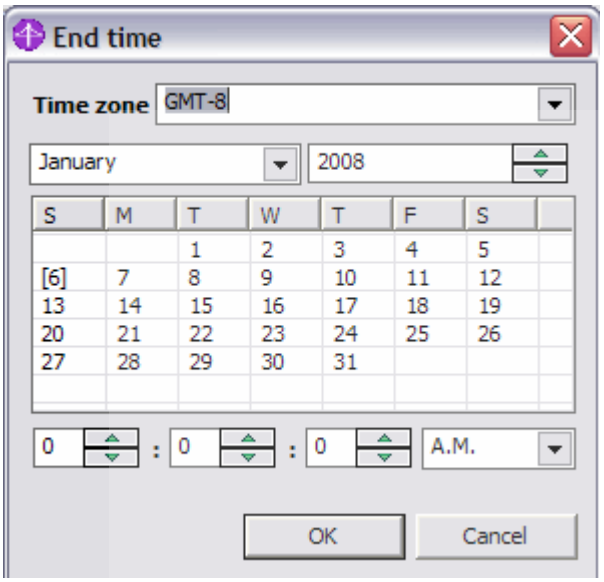
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__ 4. Click **Next.**

__ 5. Make sure **Start Time** is `Monday, January 1, 2007 12:00:00 A.M. PST`.

__ 6. Click **Select Time** next to **End Time** and enter `Saturday, January 6, 2007 0:00:00 A.M. GMT-8`.



__ 7. Click **Finish**.

The analysis results are displayed:

Resource Availability Analysis | Staffing Project | 7:39 PM

	Start Time	End Time	Duration
	Monday, January 1, 2007 8:00:00 AM PST	Monday, January 1, 2007 5:00:00 PM PST	9 hours
	Tuesday, January 2, 2007 8:00:00 AM PST	Tuesday, January 2, 2007 5:00:00 PM PST	9 hours
	Wednesday, January 3, 2007 8:00:00 AM PST	Wednesday, January 3, 2007 5:00:00 PM PST	9 hours
	Thursday, January 4, 2007 8:00:00 AM PST	Thursday, January 4, 2007 5:00:00 PM PST	9 hours
	Friday, January 5, 2007 8:00:00 AM PST	Friday, January 5, 2007 5:00:00 PM PST	9 hours
Total			45 hours

Resource availability analysis determines the periods during which a selected resource is available, beginning and ending with times that you specify. The availability of a resource is identified by the intervals specified in its availability time table, after excluding the exempted periods and considering the validity periods.

__ 8. Right-click the **Static Analysis** tab and select **Close**.

Part 7: Generating resources costs summary analysis

__ 1. Right-click the **Staffing Project** in the Project Tree and select **Static Analysis —> Resource Analysis —> Resources Costs Summary**.

__ 2. Select **Resource Catalog** and click **Next**.

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__ 3. Click **Finish** to accept the default start and end time.

The **resources costs summary analysis** results are displayed:

Resources Costs Summary Analysis | Staffing Project | 7:41:19 PM PST

Resources Costs Summary Analysis | Staffing Project | 7:41 PM

Resource Name	Avera...	Av...	A...	Average Cost ...	Total Duration	Total Cost Pe...	Annual ...	Annual Per Time Unit Cost
Maria	$0.00			$65.00 / Hour	2349 hours	$152,685.00	2,355	$153,075.00
Michael	$0.00			$125.00 / Hour	2349 hours	$293,625.00	2,355	$294,375.00
Peter	$0.00			$55.00 / Hour	2349 hours	$129,195.00	2,355	$129,525.00
Sophia	$0.00			$85.00 / Hour	2349 hours	$199,665.00	2,355	$200,175.00

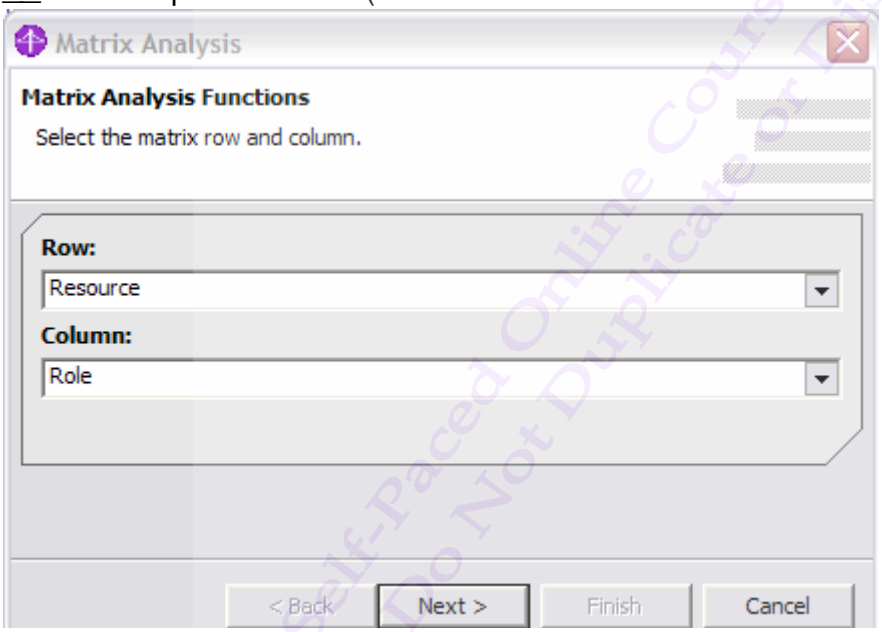
The resources costs summary analysis determines the costs of multiple resources for all periods during which the resources are available between a specified start and end time.

__ 4. Right-click the **Static Analysis** tab and select **Close**.

Part 8: Generating matrix analysis

__ 1. Right-click **Staffing Project** in the **Project Tree** and select **Static Analysis —> General Analysis** —> **Matrix Analysis.**

__ 2. Accept the default (**Resource** for **Row** and **Role** for **Column**) and click **Next**.



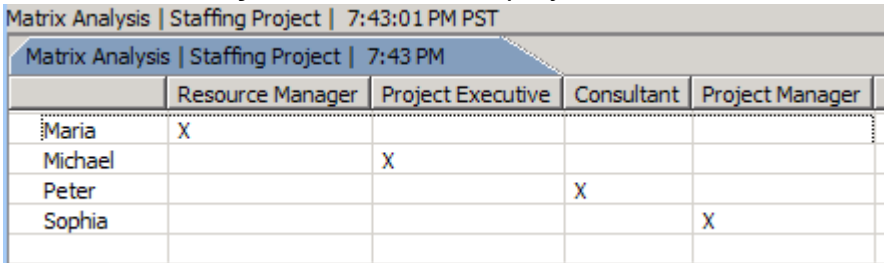
__ 3. Select **Resource Catalog** and click **Finish**.

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The **matrix analysis** results are displayed:



The matrix analysis shows the associations between model elements of two different selected types (in this case, `Resource` and `Role`).

__ 4. Right-click the **Static Analysis** tab and select **Close**.

__ 5. Exit Modeler (**File** —> **Exit**).

You may play the flashcard game after completion of the lab exercise.

Part 9: Review questions

Your instructor will review the following questions with you.

__ 1. What are the four fundamentals of the model validation?

_____

__ 2. What is activities unable to start analysis?

_____

__ 3. What is activities by classifier analysis?

_____

__ 4. What is matrix analysis?

_____

END OF EXERCISE

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Exercise 8. Basic reports and queries

What this exercise is about

This lab will provide hands-on experience in running predefined query and basic reporting functionalities in WebSphere Business Modeler.

What you should be able to do

At the end of the lab, you should be able to:

- Generate and export predefined report
- Run a predefined query
- Print the process diagram

Requirements

Previous labs should be completed successfully.

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Exercise instructions

Part 1: Opening workspace

__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Browse to **C:\ClassWorkspaces\Lab8**.

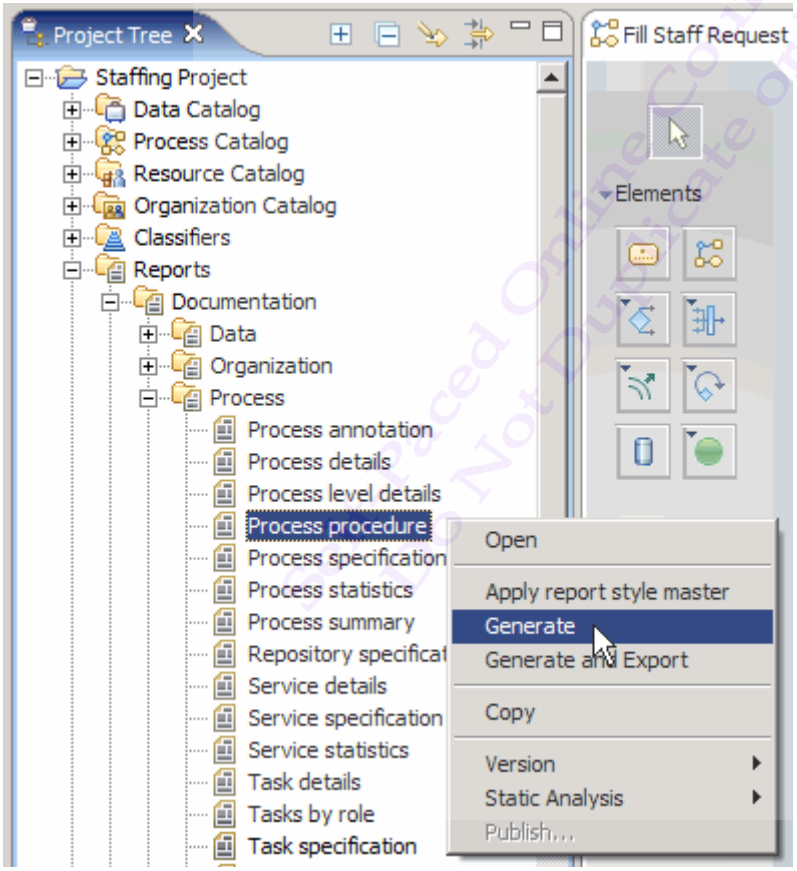
__ 3. Click **OK**.

Part 2: Generating and exporting predefined report

Reports provide a way for you to view, share and print information derived from the models you have created. A variety of predefined report templates are provided that can be used to generate reports. Additionally, you can design your own reports.

The Process procedure report shows the sequence of steps within a process, and the relationships of a process to other processes.

__ 1. From the Project Tree, expand **Staffing Project —> Reports —> Documentation —> Process**. Right-click **Process Procedure** and select **Generate**.



__ 2. At the **Enter Parameter Values** window, select each parameter field, and enter the following information in the **Parameter Field Value**:

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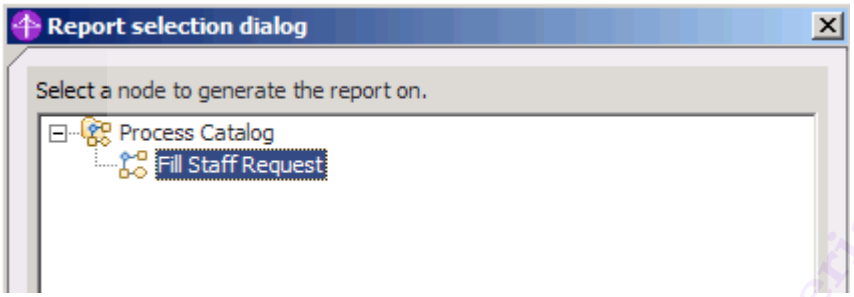
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Company E-mail: `contactus@BigApple.com`

Company Name: `Big Apple Consulting`

__ 3. Click **OK**.

__ 4. At the **Report selection dialog** window, select **Process Catalog —> Fill Staff Request**.



__ 5. Click **OK**.
This will take a few moments.

A **Preview** window opens, displaying the report.

__ 6. Click the **Next Page** button to examine the report details.

Big Apple Consulting

Friday, February 2, 2007

Connection Steps For Process

Procedure	Step	Role	Type	Next	Description
1	Review Staff Request	Project Manager	Task (l)	2	
2	Identify Qualified Resources	Resource Manager	Task (l)	3	
3	Check Consultant Availability	Resource Manager	Task (l)	4	
4	Are consultants Available?		Decision (e)	5,9	
5	Assign Team	Resource Manager	Task (l)	6	
6	Merge		Merge	7	
7	Merge:3		Merge	8	
8	Notify Employee	Consultant	Task (g)		Notify the consultant with the assignement
9	Contact Business Partner		Service (g)	10	Contact the business partner to fill the request
10	BP Resource Available?		Decision (e)	11,12	
11	Change Assignment	Resource Manager	Task (l)	6	
12	Contact Customer	Project Manager	Task (g)	13	Contact customer when business partner is not able to provide resources
13	Can Customer Wait?		Decision (e)	14,15	
14	Schedule Future Assignment	Resource Manager	Task (l)	7	
15	Notify Project Executive	Project Executive	Task (l)		

This report includes the following information about the process or multiple processes in a process catalog that you select for inclusion in the report:

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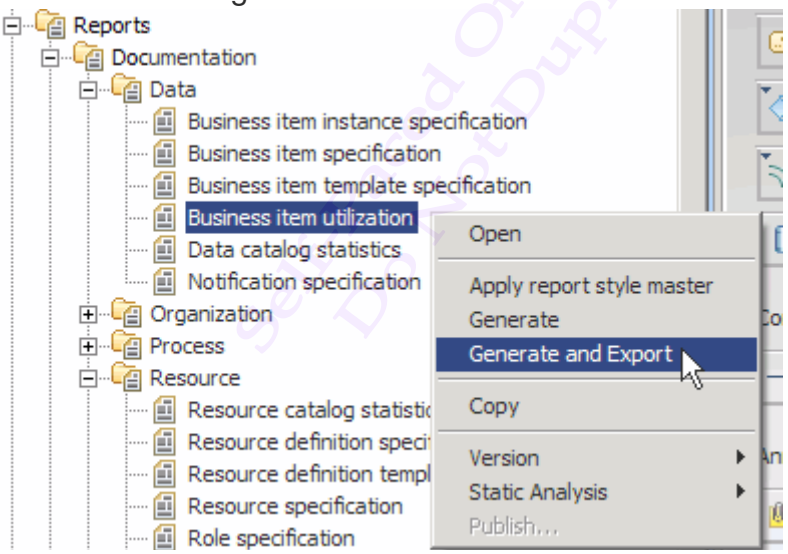
- Process name
- Catalog
- Description
- Names of other processes that use this process
- Inputs
- Outputs
- Details on each step within the process:
  - Step number
  - Step name
  - Role
  - Type (such as task, decision, or loop)
  - Next step
  - Description

__ 7. Close the **Preview** window.

The business item utilization report identifies all the business items in a model, including information about the utilization of each business item.

You will generate and export the business item utilization report in PDF format.

__ 8. From the Project Tree, expand **Staffing Project —> Reports —> Documentation —> Data**. Right-click **Business item utilization** and select **Generate and Export**.

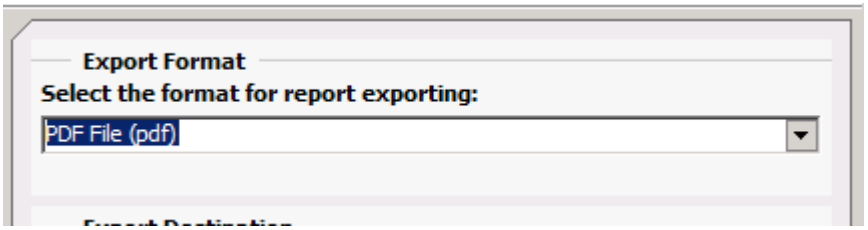


__ 9. Click **OK** to skip the parameter fields.

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__ 10. At the **Export Report** window, select **PDF File (pdf)** for the export format.

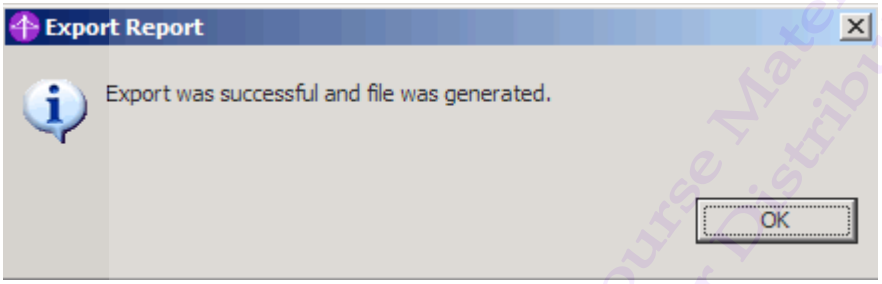


__ 11. Click **Browse** to select folder **C:\ClassWorkspaces\Lab8**.

__ 12. Enter `Business item utilization report` as File name.

__ 13. Click **Save**.

__ 14. Click **Finish**.
This will take a few moments. Click OK when the **export** is finished.



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__ 15. Use Window Explorer to navigate to **C:\ClassWorkspaces\Lab8\Business item utilization report.pdf**.

Model Specification

Business Item Utilization

Company Name	Company Name
Company Address	Company Address
Email Address	Company Email
Print Date	Saturday, February 3, 2007



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This report contains the following information about business items:

- Business item name
- Description
- Attributes
- Activity that the business item is used by

__ 16. Close the `Business item utilization report.pdf` file.

Part 3: Running a predefined query

Queries allow you to extract and view information on elements of your models.

Queries return information about model elements of one specified type. You can use queries to confirm that the content of your models accurately represents your business, to gather required information for making business decisions, to document and disseminate specific types of information, and to define the content that you can use for creating reports.

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The query builder allows you to create queries. Within a query that you create, you can use expressions to get information on the specific model elements that interest you. For example, you can create a query that retrieves all the individual resources that have a cost per time unit of $20.00 or less. For each resource, you can define what type of information the query should display, such as the name, the cost per time unit, and roles for which the resource is qualified.

You can use the predefined queries to extract and view information on elements of your models.

Queries return information about model elements of one specified type. There are three main categories of predefined queries:

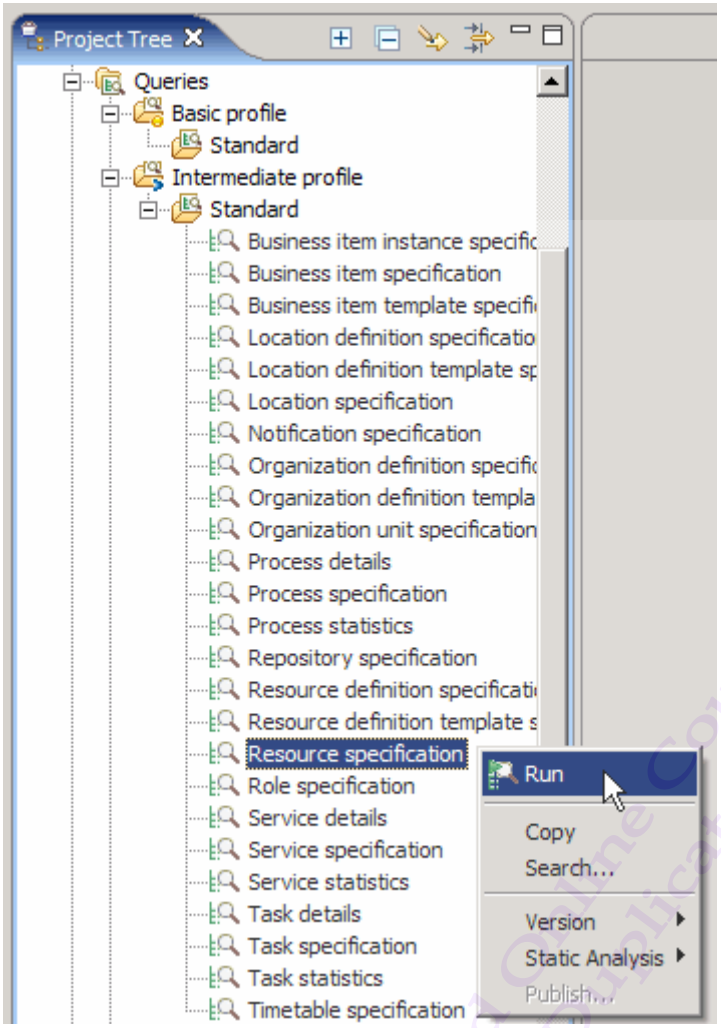
- Details queries return the elements of other types, such as resources, roles, organization units, locations, and business items, that are associated with the selected element. You can use these queries to validate and to view the relationships between model elements.
- Statistics queries return the number of each element associated to the selected model element. You can use these queries to evaluate the complexity and the degree of interconnection of model elements.
- Specification queries return the values contained in the specification of the selected element. You can use these queries to validate and to view model elements of specific types.

When you execute a query, the results appear in the Query view. You can also use queries as a source of data when you generate reports.

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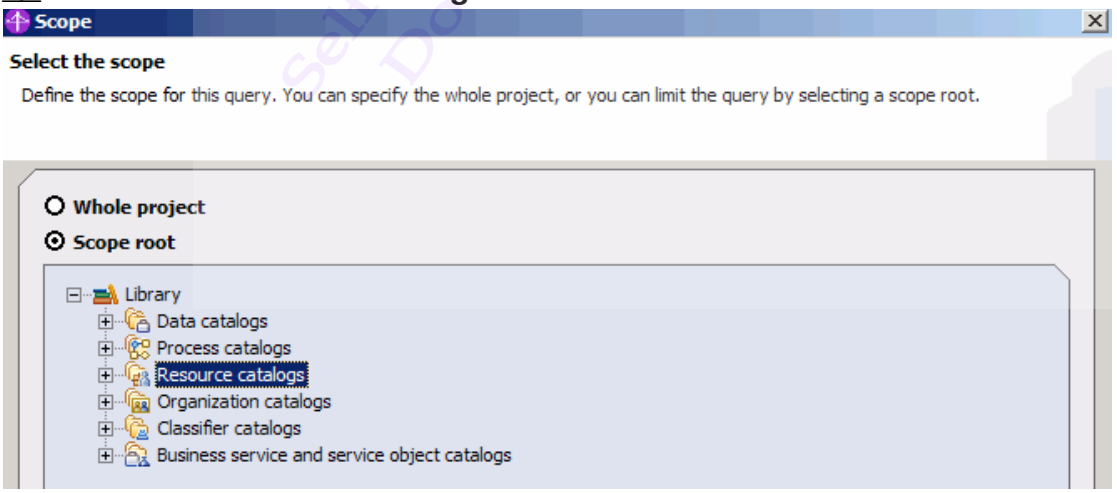
__ 1. Within the Project Tree, select **Staffing Project —> Queries —> Intermediate Profile —> Standard —> Resources Specification**. Right-click and select **Run**.



The **Scope** window is displayed.

__ 2. Select **Scope root** and expand **Library**.

__ 3. Select **Resource Catalogs** and click **OK**.

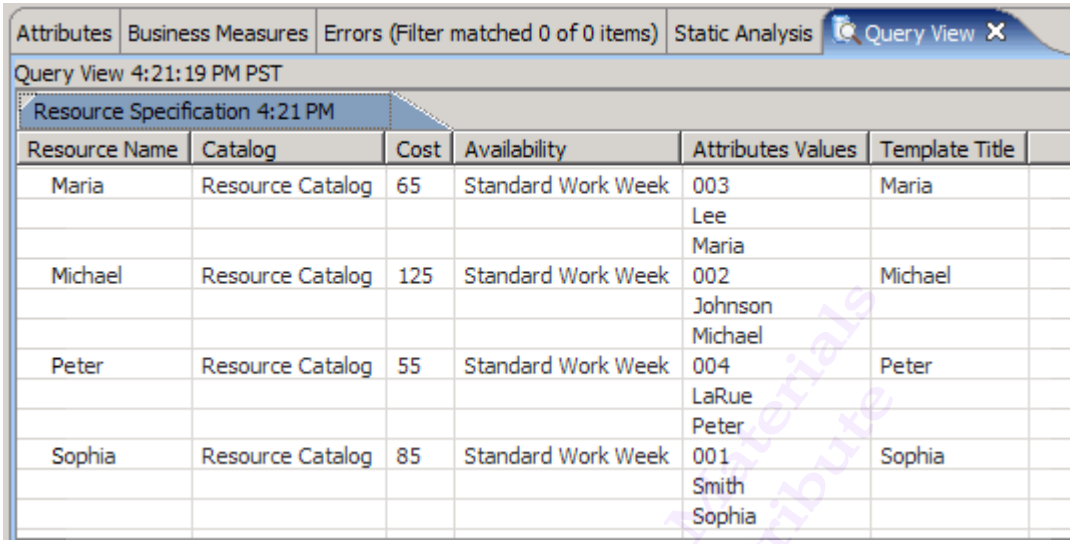

Scope
Select the scope
Define the scope for this query. You can specify the whole project, or you can limit the query by selecting a scope root.
Whole project
Scope root
Library
Data catalogs
Process catalogs
Resource catalogs
Organization catalogs
Classifier catalogs
Business service and service object catalogs

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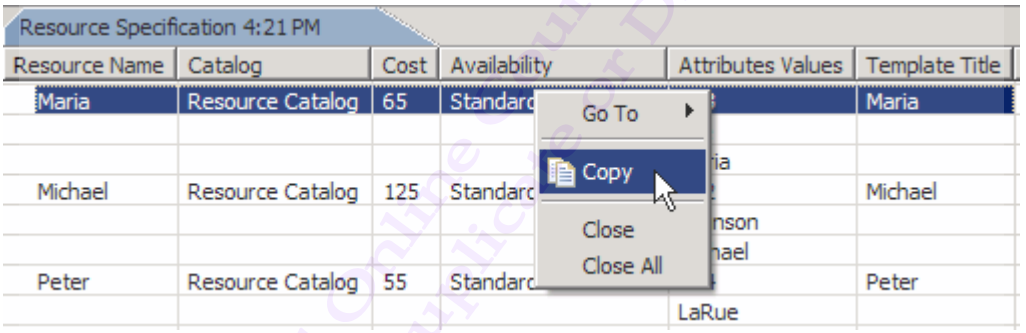
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The **Resource Specification** results will be displayed in the **Query View** in the bottom right pane — this shows the details of all the business items contained within the Data Catalog.



Resource Name	Catalog	Cost	Availability	Attributes Values	Template Title
Maria	Resource Catalog	65	Standard Work Week	003	Maria
				Lee	
				Maria	
Michael	Resource Catalog	125	Standard Work Week	002	Michael
				Johnson	
				Michael	
Peter	Resource Catalog	55	Standard Work Week	004	Peter
				LaRue	
				Peter	
Sophia	Resource Catalog	85	Standard Work Week	001	Sophia
				Smith	
				Sophia	

__ 4. Right-click the result table and select **Copy**.



You may copy the results to either a Word document, PowerPoint, or spreadsheet.

Part 4: Printing the process diagram

You can print process diagrams, structure diagrams, structure definition diagrams, and simulation profile diagrams. You can also export diagrams, including business measures diagrams, to SVG, JPG and PDF formats. A printed diagram will be a precise copy of the diagram that appears in the diagram's editor.

Before you print or export a diagram, ensure that the final product will be useful by ensuring that the diagram is readable in its editor and that the diagram elements do not overlap. Also check that WebSphere Business Modeler is in the correct mode to display the diagram information that you want to print or export. For example, if you want to see inputs and outputs in the process diagram, make sure that you are working in the Advanced Business Modeling mode.

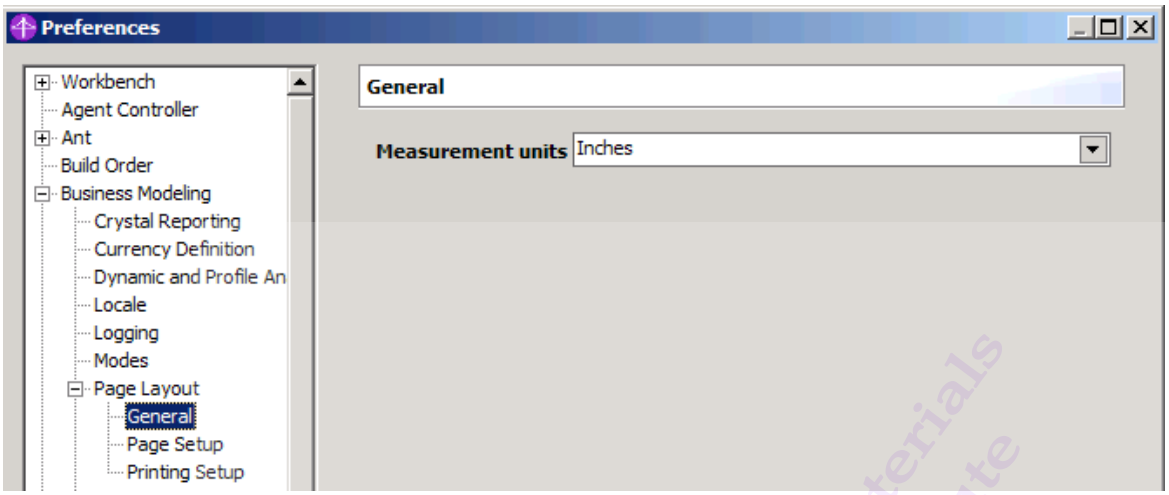
Before you print, you may want to set up your printing preference:

__ 1. From the menu bar of Modeler, select **Window —> Preferences**.

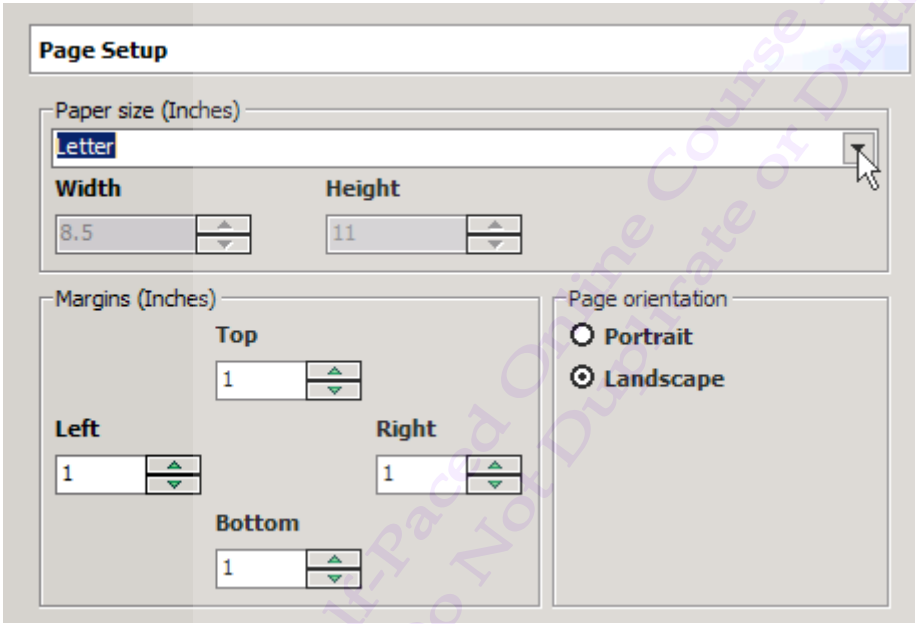
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__ 2. Go to **Business Modeling —> Page Layout —> General,** and select **Inches** for **Measurement units.**



__ 3. Go to **Business Modeling —> Page Layout —> Page Setup,** and select **Letter** for **Page size.**



__ 4. Click **Apply**.

__ 5. Click **OK**.

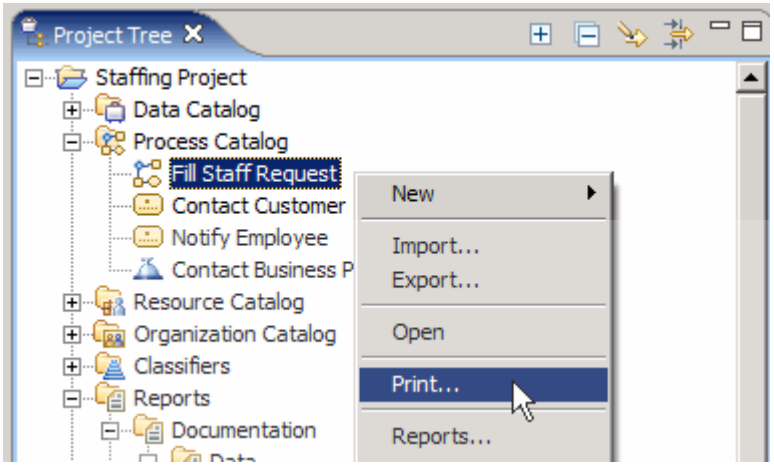
Now, you will print the Fill Staff Request process diagram in swimlane layout from the Project Tree.

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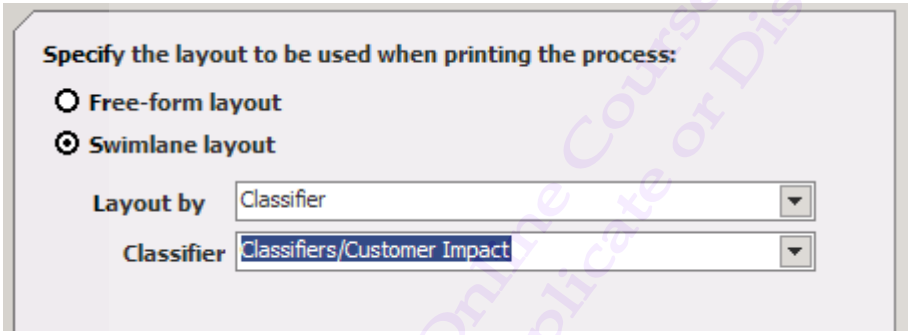
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__ 6. Within the Project Tree, select **Staffing Project —> Process Catalog —> Fill Staff Request**. Right-click and select **Print**.



The **Print** window is displayed.

__ 7. Select **Swimlane layout,** select **layout by: Classifier**, and select **Classifiers/Customer Impact**.



__ 8. Click **Next**.

__ 9. Click the **Printing setup** tab.

__ 10. Select **Fit to page**.

__ 11. Click **Finish**.

A Preview Dialog will display before you send the print out to printer. You can select **File —> Print** to print the diagram.

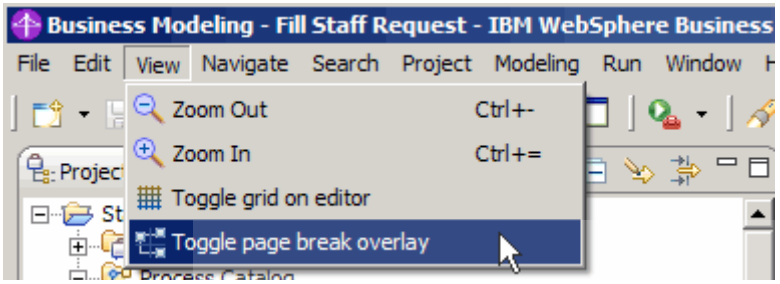
Now, you will print the Fill Staff Request process diagram in free-form layout from the process editor.

__ 12. If the Fill Staff Request process editor is not open, select **Staffing Project —> Process Catalog —> Fill Staff Request**. Right-click and select **Open**.

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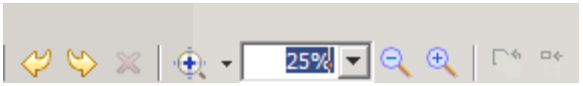
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__ 13. You can preview the page break by selecting **View —> Toggle page break overlay** from the menu bar.



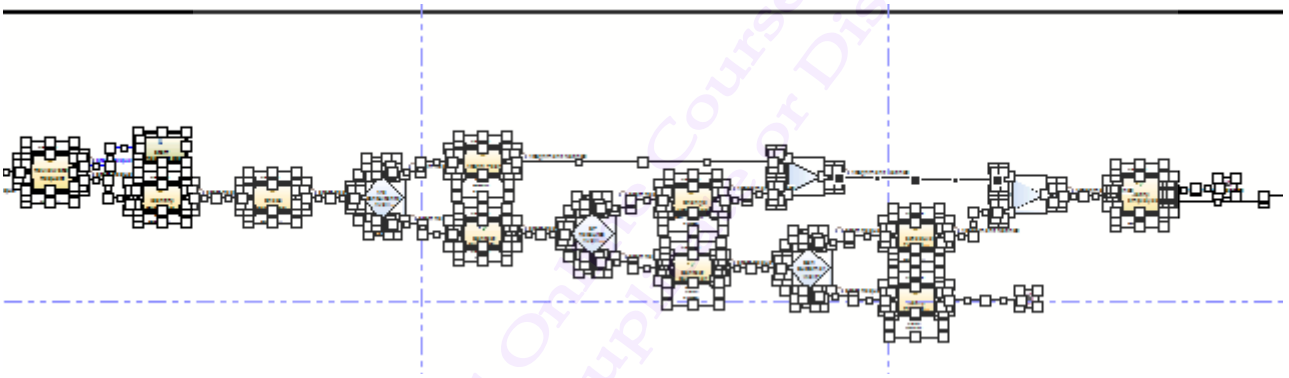
Now you can see the page break represented by dotted lines on the diagram.

__ 14. Select Zoom to 25% from the toolbar.

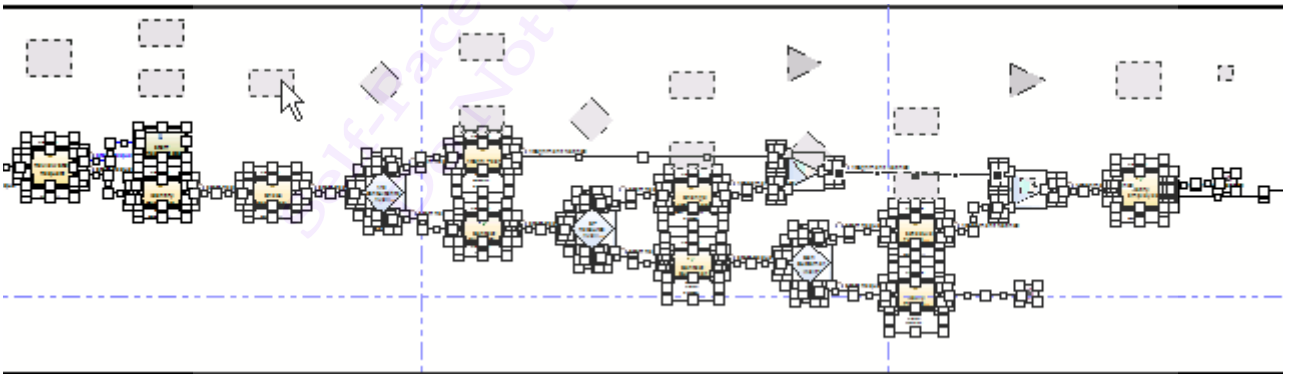


__ 15. Now you can see the whole diagram with page break, and it appears that there are eight pages.

__ 16. From the diagram, press **Ctrl-A** to select all the objects.



__ 17. Use your mouse to drag the whole diagram to move above the page break.

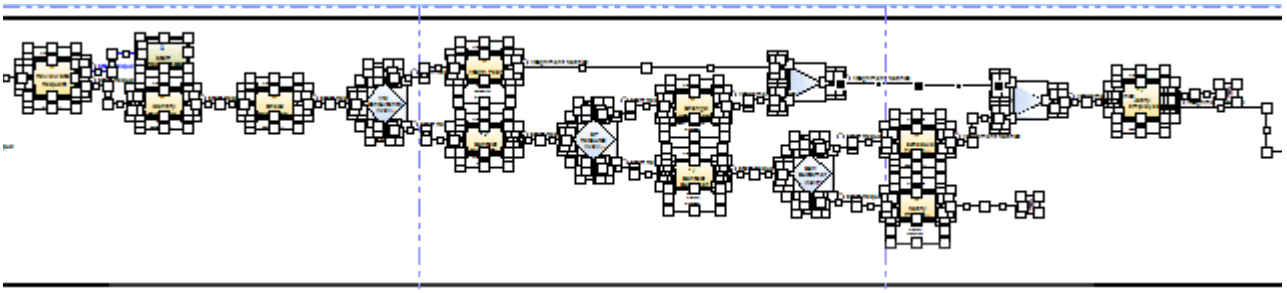


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Now the diagram will be printed as three pages across and it is much easier to read.



__ 18. Right-click the background of the Fill Staff Request diagram and select **Print...**

The **Print** window is displayed.

__ 19. Click **Next**.

__ 20. Select **Color** under **Color options.**

__ 21. Click the **Printing setup** tab.

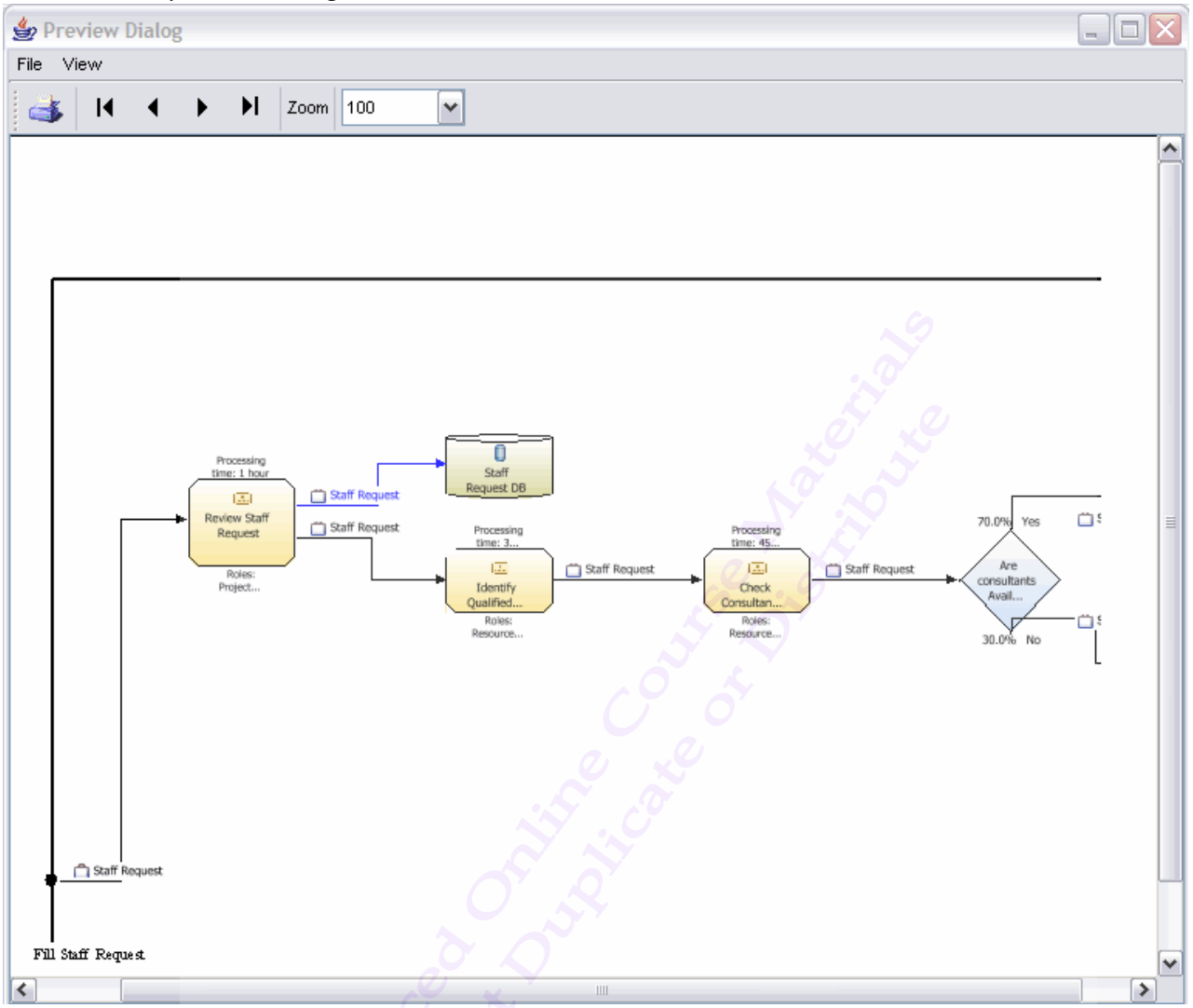
__ 22. Select **Scale to 100%.**

__ 23. Click **Finish**.

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A Preview Dialog will display before you send the print out to printer. You can select **File —> Print** to print the diagram.



__ 24. Press **Ctrl+S** to save the changes.

__ 25. Exit Modeler.

You may play the flashcard game after completion of the lab exercise.

Part 5: Review questions

Your instructor will review the following questions with you.

__ 1. What is a process procedure report?

_____

__ 2. What is a business item utilization report?

_____

__ 3. What is a resource specification report?

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__ 4. What is the function of queries in Modeler?

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Exercise 9. Modeling for process mapping

What this exercise is about

This lab covers a case study and interactive group discussion of the modeling techniques and an alternate solution.

In this exercise, you are presented with a case study that you are a business analyst assigned to a business process management project. You will read the case and the information about the company and its expenses reporting process. Based on the information provided, use the Modeler to created a project, business items, and the process diagram that represents what was said in the interviews.

What you should be able to do

At the end of the lab, you should be able to:

- Translate “What they said” into a meaningful model.

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Exercise instructions

Part 1: Opening workspace

__ 1. To launch Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Browse to **C:\ClassWorkspaces\Lab9**.

__ 3. Click **OK**.

Part 2: Case study — Big Apple software

The business case — expense reporting

Company information

Software Services Company — “Big Apple”

- 600 employees, $180 million in revenue
- The company expects to grow 100% in sales and 80% in resources over a three-year period.
- Staff and systems appear to be at maximum capacity
- Customer is willing to invest to improve systems

Current state

- 400 consultants, billed 40 weeks a year.
- 16,000 expense reports (1333 per month or 333 per week).
- 65% of expense reports are not filled out correctly and thus require additional time and effort.

The results of SME interviews — what they said:

Services (consultant)

- “Each week, I collect receipts and fill out an expense form, which takes me about 20 minutes.”
- “I submit it to Administration for approval. I have to correct two of the three forms I complete. They just cannot understand what I fill out.”

Administration (clerk)

- “There are six of us and one supervisor working in Administration. We get about 330 expenses per week. Luckily the same number come in each day.”
- “It usually takes us about 30 minutes to review each expense form if the expenses are filled out correctly. Otherwise, the form goes back to the consultant to be corrected and we have to review it again.”
- “We process about 330 expenses per week, plus 220 (rework), and that is about a total of 550 expenses.”

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Accounts payable (supervisor)

- "My three clerks can do the preparation step in about two minutes. It usually takes me about ten minutes to authorize payment in the form of a payment voucher. After that it takes the clerks about five minutes to file the expense form and receipts."
- "After the payment is authorized, we send it out to a payroll company. It takes them two days to cut a check."
- "I wish I did not have to authorize each expense, it really wastes my time on the small stuff."

Pain points — conclusion from interviews:

- "Paperwork is killing us"
- Payments are made late
- Staff is overworked
- Submitted reports have errors
- Need communication between consulting and administration

Salary information

- Services (consultant) — $45 per hour
- Administration (clerk) — $10 per hour
- Accounts payable (supervisor) — $20 per hour
- Accounts payable (clerk) — $10 per hour

Work schedule

- Services (consultant) — 8 a.m. – 5 p.m., Mon. – Fri.
- Administration (clerk) — 9 a.m. – 6 p.m., Mon. – Fri.
- Accounts payable (supervisor) — 9 a.m. – 6 p.m., Mon. – Fri.
- Accounts payable (clerk) — 9 a.m. – 6 p.m., Mon. – Fri.

Project standards, process objects and attributes

Scope

- Processes — expense submission, expense authorization
- Organization units — consulting, administration, accounts payable

Process-modeling reference material

- Interviews with subject matter experts (SME)
- Salary information
- Work schedule

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Process data to collect

- Tasks
- Durations
- Cost
- Inputs and outputs
- Decisions and choices
- External processes

Organizational data to collect

- Organizational units
- Resources
- Roles

Project goals

Current goals:

- Understand the current expenses reporting process
- Build the expenses reporting model
- Identify the current process time and cost

Future goals

- Reduce workload on accounts payable staff by 50%
- Streamline the approval process
- Improve data integrity
- Reduce rework



Note

For self-paced students, you may join the live sessions hosted by an instructor to discuss the best practice of building a process model.

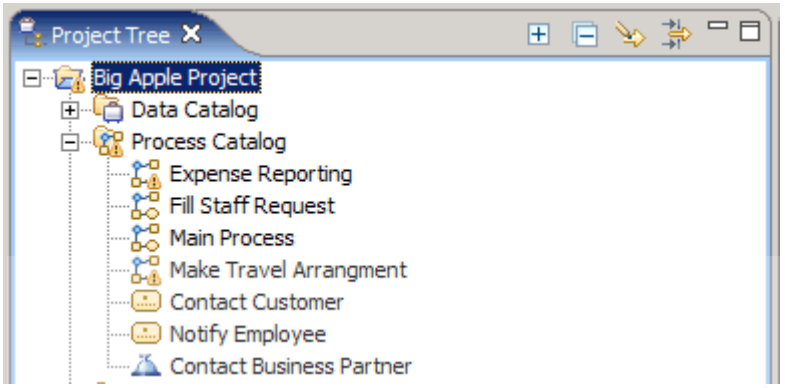
Part 3: Opening the main process

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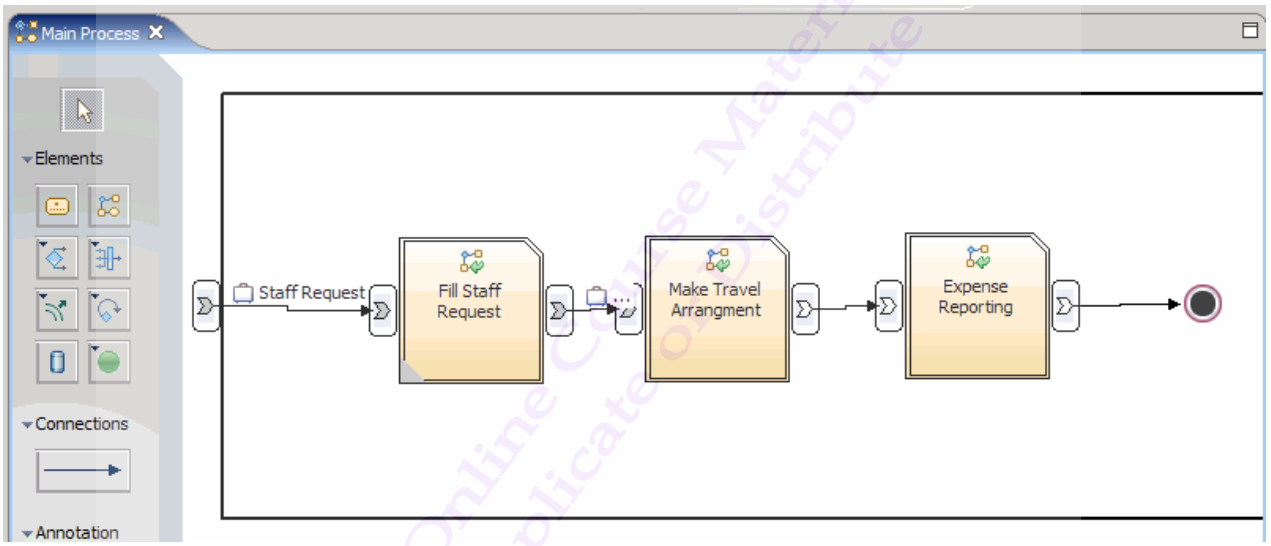
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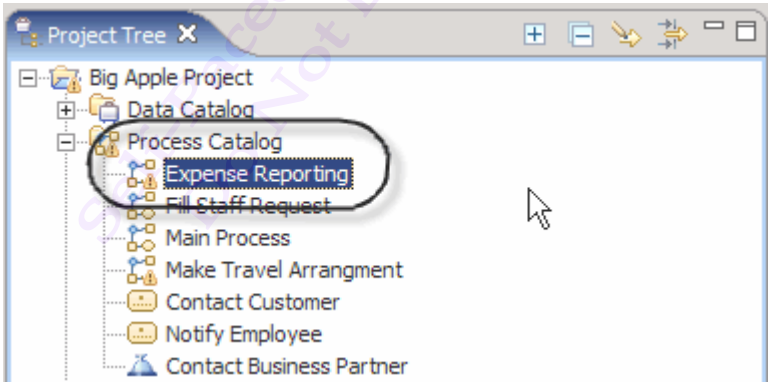
__ 1. In the Big Apple Project, there are four different processes.



__ 2. The **main process** has been created for you.



__ 3. You will be building the **Expense Reporting** process in this lab.



Now you can begin modeling

Based on all the information available in the case, you may now start building the **Expense Reporting** process model to represent the **current process**.

When you complete your model

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Upon completion of your process model, you will participate in an interactive group discussion to be led by the instructor.



Note

Note: For self-paced students, you may discuss your model at one of the optional live sessions with the instructor. Check your enrollment e-mail for details.

Case study solutions can be found in your Student Files/Solution folder.

END OF EXERCISE

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Exercise 10. Project versioning using CVS

What this exercise is about

This lab covers the installation of CVS on the server machine and team support using CVS with WebSphere Business Modeler.

What you should be able to do

At the end of the lab, you should be able to:

- Install CVS
- Set up a CVS client
- Create a new modeling project
- Add a project to CVS
- Make and manage changes in your project
- Create a new workspace and set up CVS client
- Update a project from the repository
- Work in a multiple-developer environment

Requirements

Download the *Other Software files for VB184* from the eLearning site.

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Exercise instructions

Part 1: Install CVS

The following steps illustrate how to install CVS on your machine.

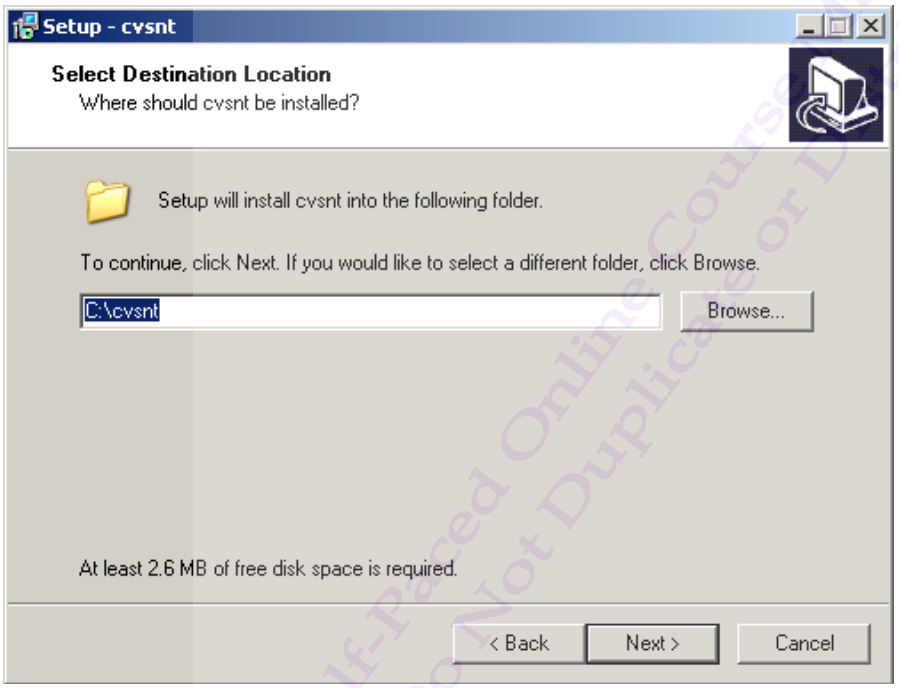
__ 1. Double-click `cvsnt-2.0.58d.exe` from the `C:/VB184/Software` folder.

__ 2. The **Setup** wizard window is displayed. Click **Next** to continue.

__ 3. On the **License Agreement** screen, select **I accept the agreement** and click **Next**.

__ 4. On the **Select Destination Location** screen, enter `C:\cvsnt` as the installation destination folder.

Be sure to enter the correct path name. Do not install in the Program Files folder; otherwise, this lab will not work, and you will encounter a connection failure.


Setup - cvsnt
Select Destination Location
Where should cvsnt be installed?
Setup will install cvsnt into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\cvsnt
Browse...
At least 2.6 MB of free disk space is required.
< Back
Next >
Cancel

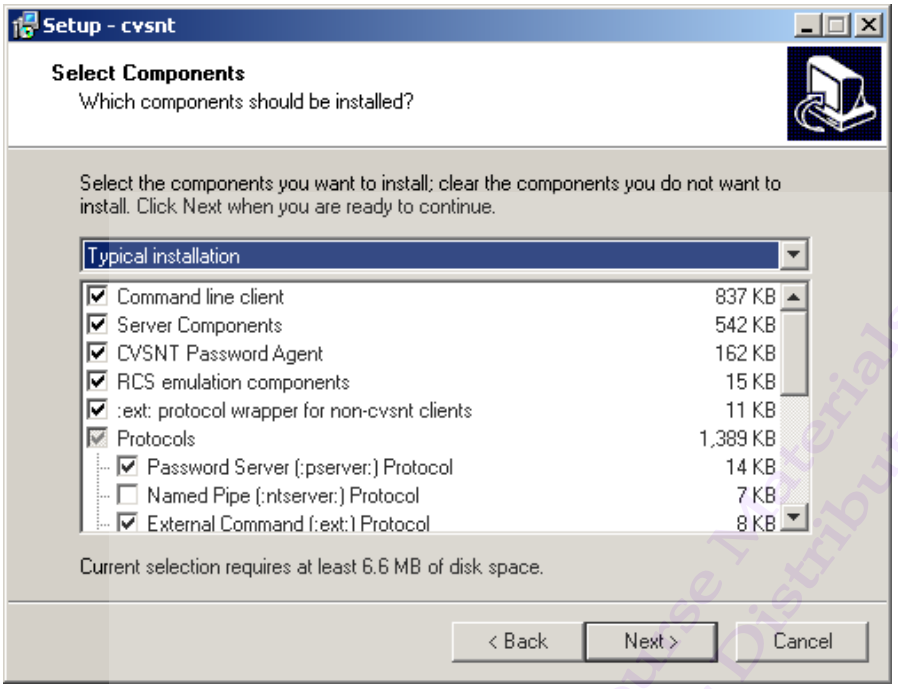
__ 5. Click **Next** to continue.

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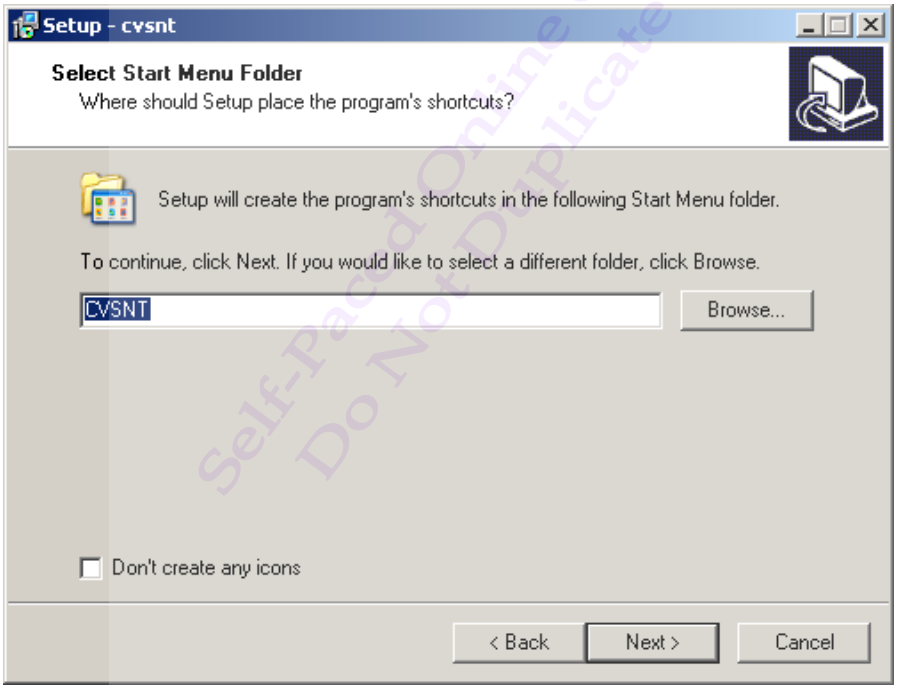
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__ 6. On the **Select Components** screen, select **Typical Installation**, and then click **Next** to continue.


Setup - cvsnt
Select Components
Which components should be installed?
Select the components you want to install; clear the components you do not want to install. Click Next when you are ready to continue.
Typical installation
Command line client 837 KB
Server Components 542 KB
CVSNT Password Agent 162 KB
RCS emulation components 15 KB
:ext: protocol wrapper for non-cvsnt clients 11 KB
Protocols 1,389 KB
Password Server (:pserver:) Protocol 14 KB
Named Pipe (:ntserver:) Protocol 7 KB
External Command (:ext:) Protocol 8 KB
Current selection requires at least 6.6 MB of disk space.
< Back
Next >
Cancel

__ 7. On the **Select Start Menu Folder** screen, verify that `CVSNT` is entered.

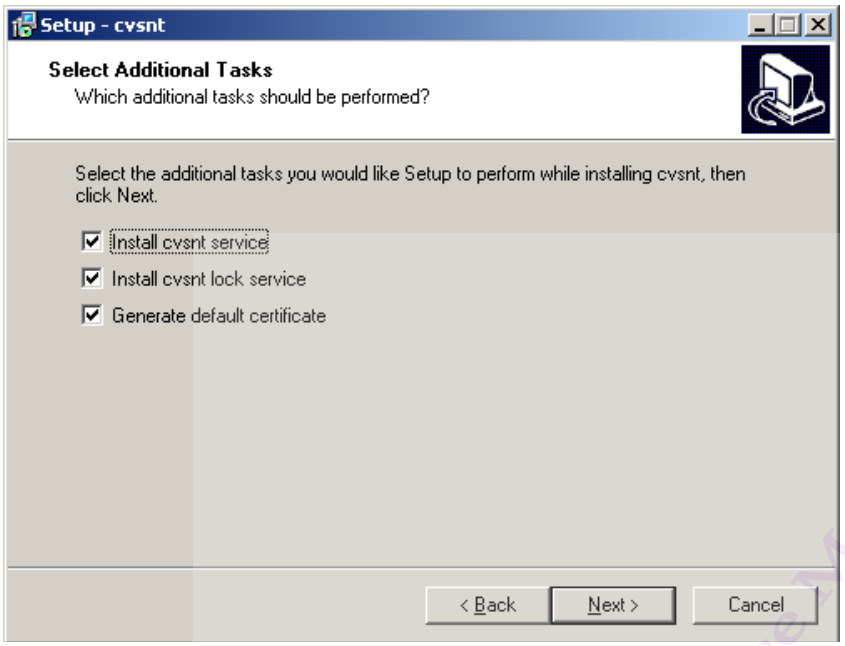

Setup - cvsnt
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Setup will create the program's shortcuts in the following Start Menu folder.
To continue, click Next. If you would like to select a different folder, click Browse.
CVSNT
Browse...
Don't create any icons
< Back
Next >
Cancel

__ 8. Click **Next** to continue.

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__ 9. On the **Select Additional Tasks** screen, leave all three check boxes selected.


Setup - cvsnt
Select Additional Tasks
Which additional tasks should be performed?
Select the additional tasks you would like Setup to perform while installing cvsnt, then click Next.
Install cvsnt service
Install cvsnt lock service
Generate default certificate
< Back
Next >
Cancel

__ 10. Click **Next** to continue.

__ 11. On the **Ready to Install** screen, click **Install** to continue.

__ 12. Click **Finish** to exit setup.

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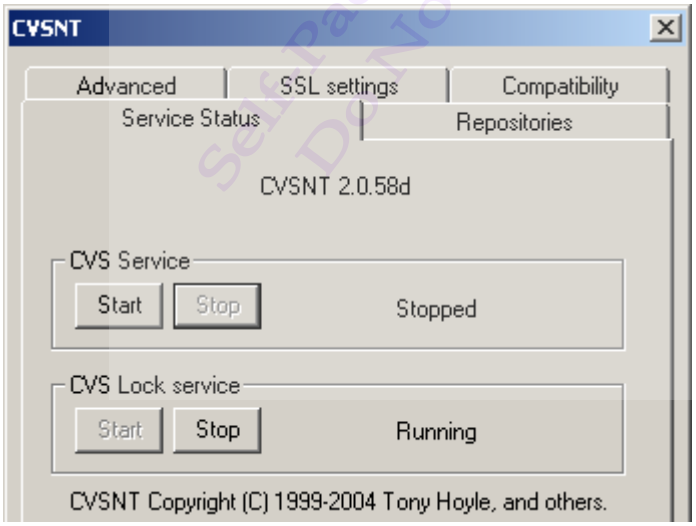
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__ 13. Verify that a CVS repository has been created.

__ a. Click **Start** -> **Programs** -> **CVSNT** -> **Service control panel**.



__ b. Under **CVS Service**, click **Stop**. The CVS Service is stopped.

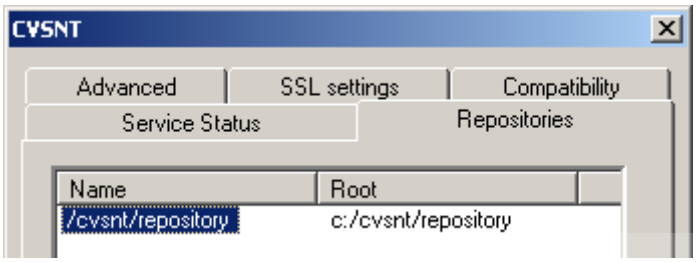


__ c. Click the **Repositories** tab.

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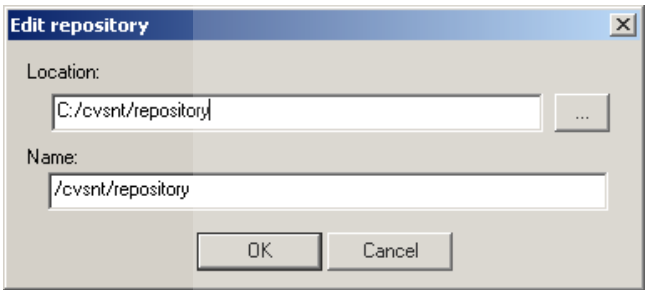
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__ d. Verify that `/cvsnt/repository` is listed.

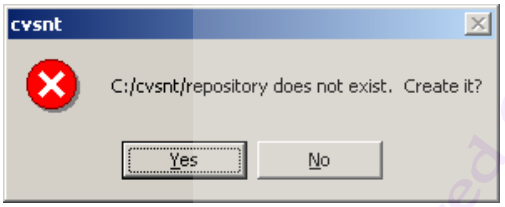


__ e. If not, complete the following steps to add a new repository:

- Click **Add**.
- Under **Location**, enter `C:/cvsnt/repository`



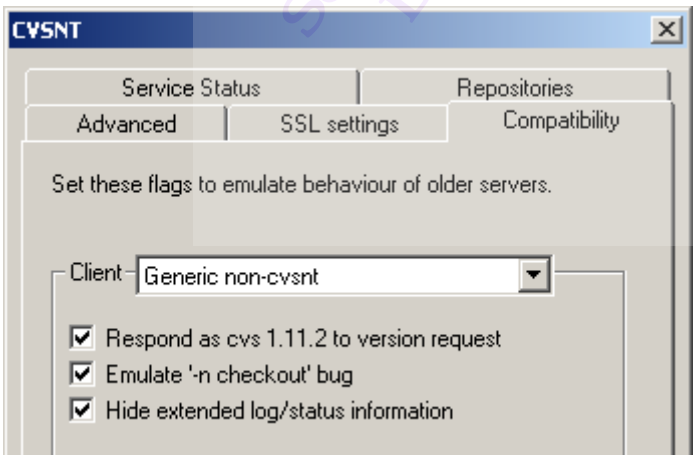
- Click **OK**.
- Click **Yes** to create the repository directory.



The repository is now created.

__ 14. Click the **Compatibility** tab.

__ 15. Select all three check boxes.



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__ 16. Click **Apply**.

__ 17. Return to the **Service Status** tab.

__ 18. Under **CVS Service**, click **Start**.

__ 19. Click **OK** to exit the **Service Control** panel.

Part 2: Setting up a CVS client

This section provides hands-on experience with the version function of WebSphere Business Modeler. The following steps illustrate how to configure the CVS Repository perspective in Modeler.



Note

The firewall on your computer must be disabled.

__ 1. Launch Modeler by clicking **Start -> Programs -> IBM WebSphere -> Business Modeler**.

__ 2. Create a new workspace by typing `C:\ClassWorkspaces\Lab10` in the field.

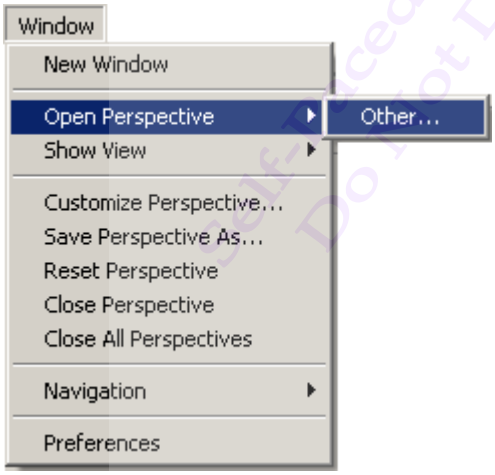
__ 3. Click **OK**.

__ 4. In the **Quickstart Wizard** dialog box, click **Cancel**.

__ 5. Close the **Welcome** page.

__ 6. Switch to **4-pane layout**.

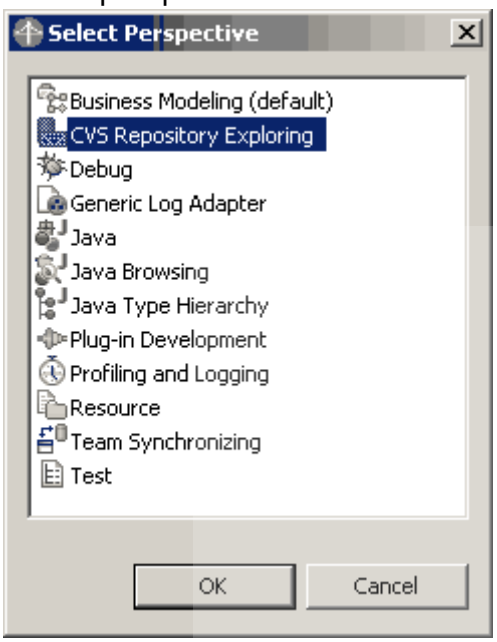
__ 7. From the menu bar, click **Window -> Open Perspective -> Other**.



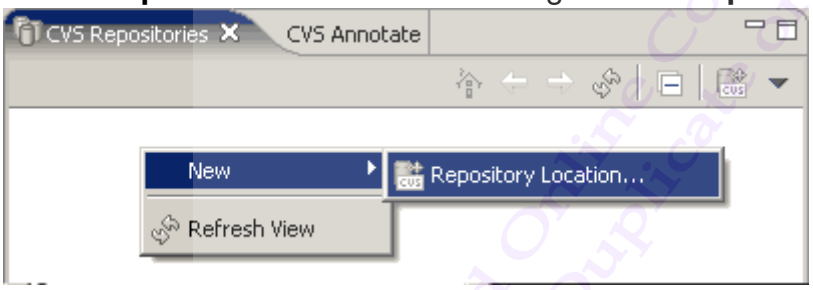
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__ 8. Select **CVS Repository Exploring** to open the CVS Repository Exploring perspective. Click **OK**.



__ 9. Add a new repository location by right-clicking the white space of the **CVS Repositories** view and selecting **New** -> **Repository Location...**



__ 10. Enter your CVS server's information.

__ a. **Host:** `localhost`.

__ b. **Repository Path:** `/CVSNT/Repository`

__ **c. User:** `[Window logon ID of your computer]`

For students enrolled in self-paced courses, enter the Windows logon ID of your computer.

__ d. **Password:** `[Window logon password of your computer]`

For students enrolled in self-paced courses, enter the Windows password of your computer.

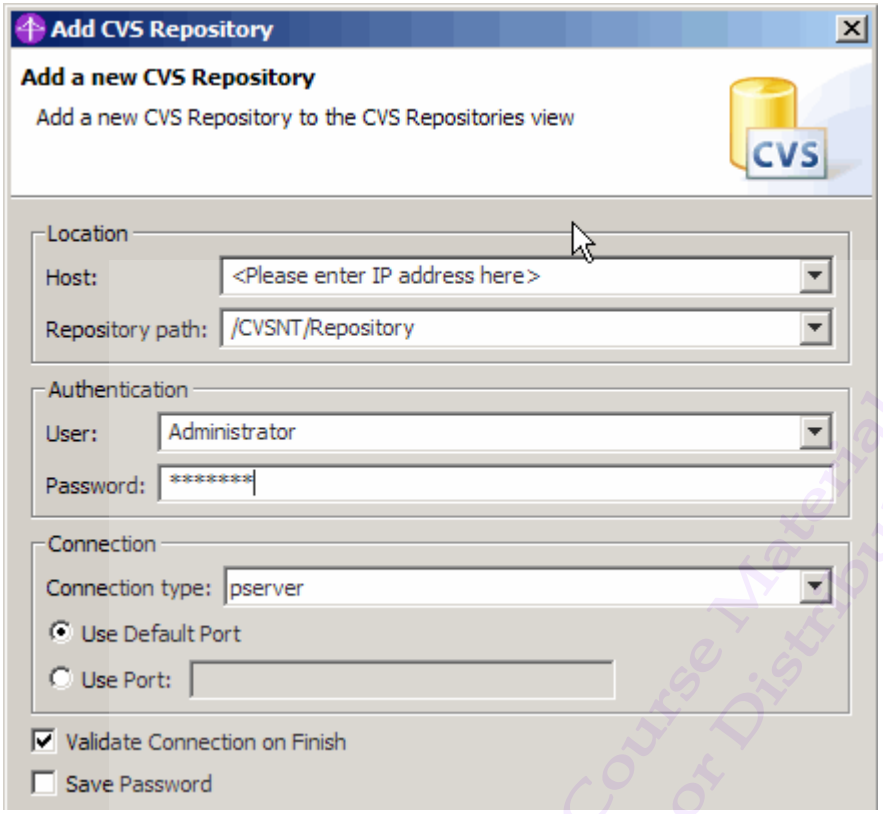
__ **e. Connection Type:** `pserver`

__ f. Verify that the **Use Default Port** option is selected.

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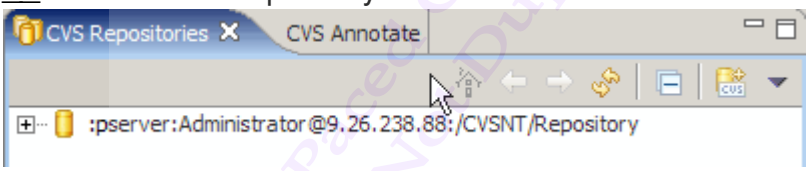
__ g. Verify that the **Validate Connection on Finish** check box is checked.



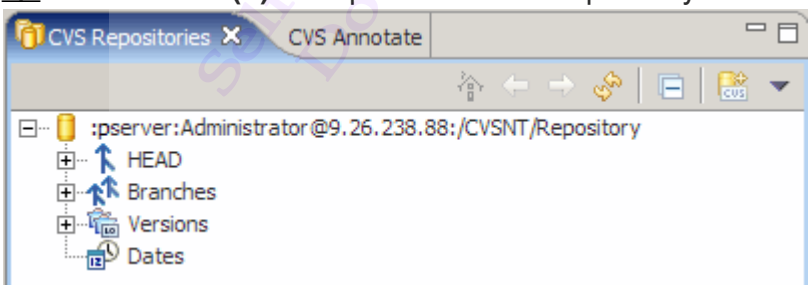
__ 11. Click **Finish**.

__ 12. If you encounter the **Unable to Validate** error message, click **Yes**.

__ 13. The CVS repository is created.



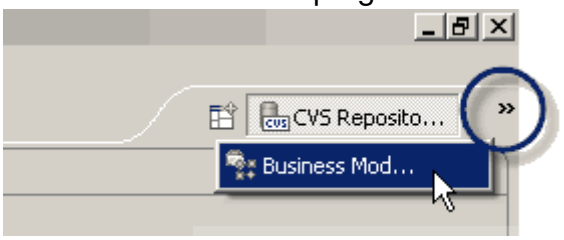
__ 14. Click the **(+)** to expand the CVS repository to examine the structure.



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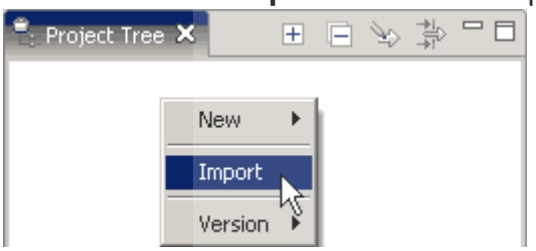
__ 15. Return to the Business Modeling perspective by selecting the **Business Modeling** button at the top right corner of the screen.



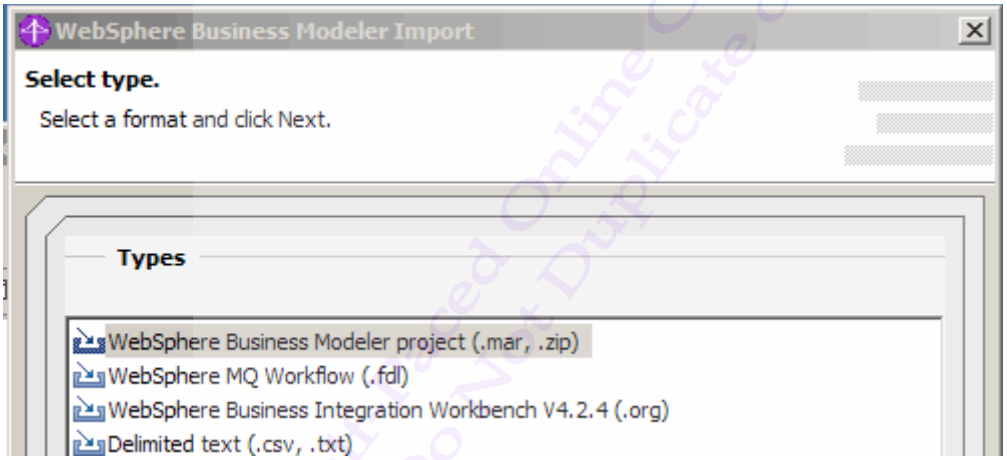
Part 3: Creating a new modeling project

Import the ABCProject from the sample folder.

__ 1. In the Project Tree, right-click and select **Import**. The **WebSphere Business Modeler Import** window is displayed.



__ 2. Select **WebSphere Business Modeler project (.mar, .zip)** and click **Next**.


WebSphere Business Modeler Import
Select type.
Select a format and click Next.
Types
WebSphere Business Modeler project (.mar, .zip)
WebSphere MQ Workflow (.fdl)
WebSphere Business Integration Workbench V4.2.4 (.org)
Delimited text (.csv, .txt)

__ 3. Under **Source directory**, click Browse.

__ 4. Browse to **C:\Program Files\IBM\WebSphere\Modeler6\samples**.

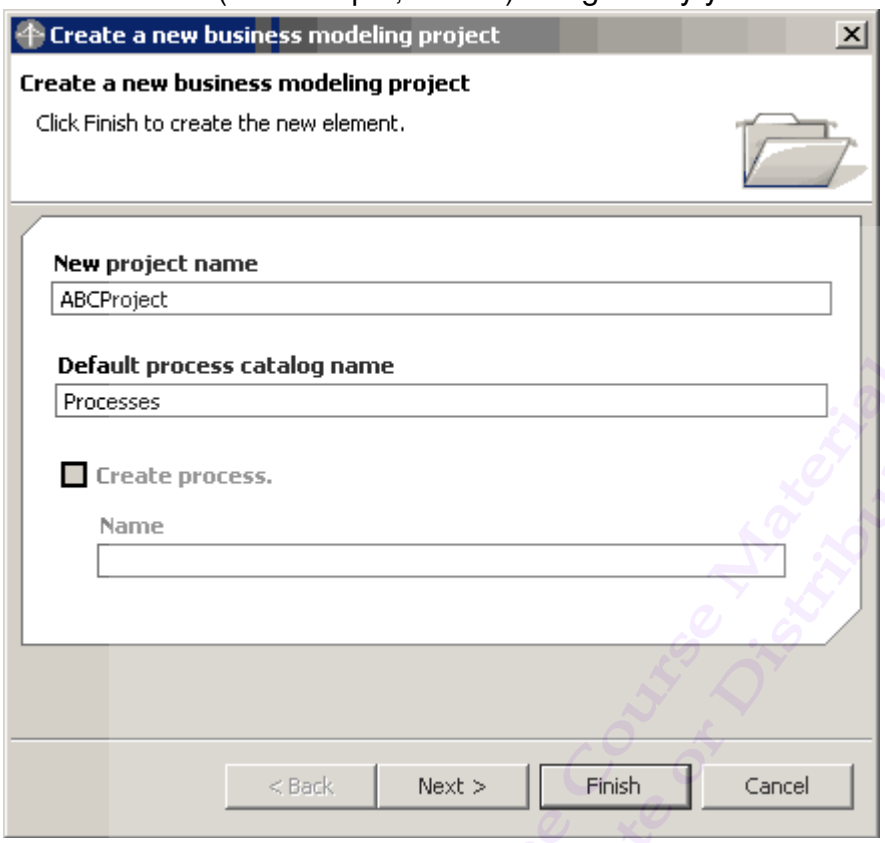
__ 5. Select **ABCProject.mar** under **Files**.

__ 6. Next to the **Target project** field, click **New**.

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__ 7. Enter `ABCProject for STUnn` as **New project name**, where `STUnn` is your student number (for example, `STU01`) assigned by your instructor.



__ 8. Click **Finish**.

__ 9. Once project files have been created, verify that `ABCProject for STUnn` is displayed in the **Target project** field in the **WebSphere Business Modeler Import** window.

__ 10. Select the **Overwrite existing elements** check box.

__ 11. Click **Finish**.

__ 12. Click **OK** when the import is finished.

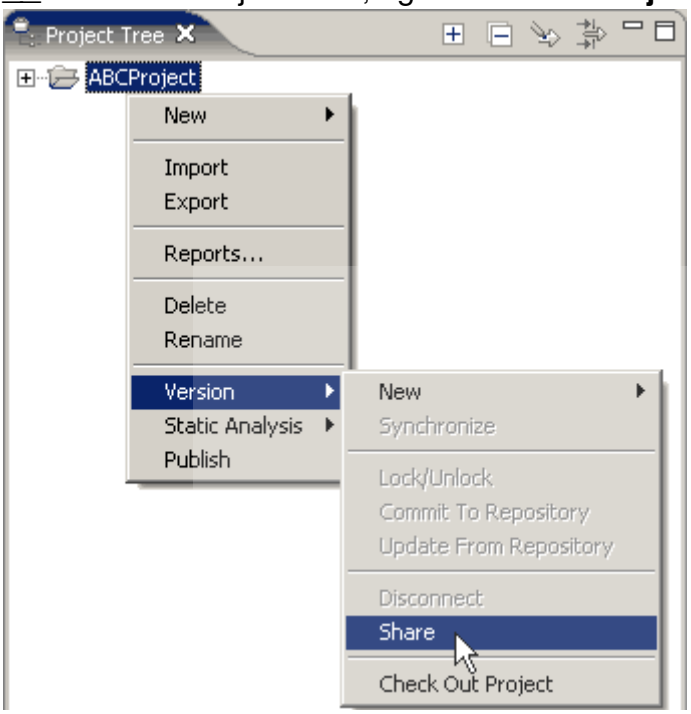
Part 4: Adding a project to CVS

This section of the lab shows you how to add ABCProject to your CVS repository.

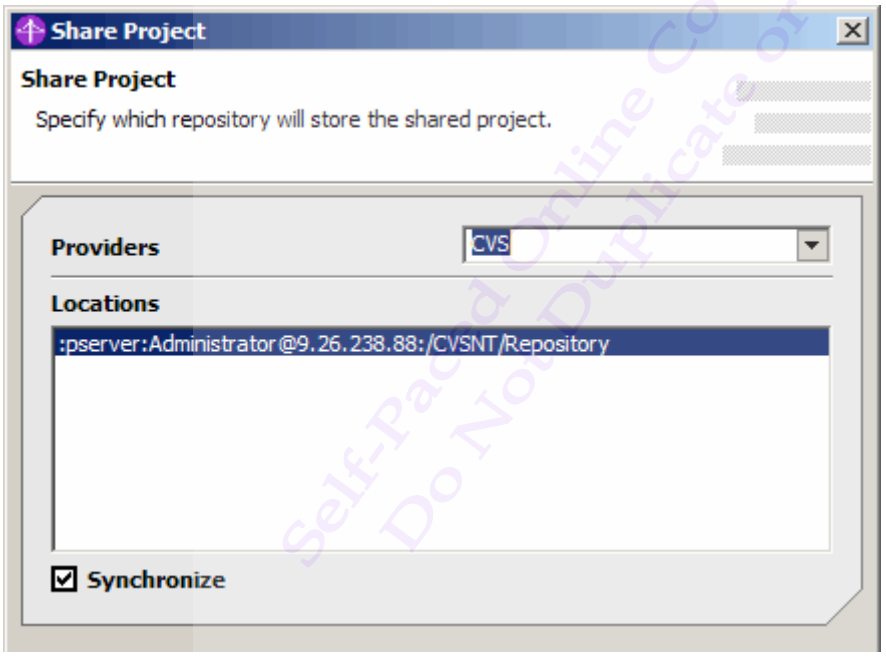
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__ 1. In the Project Tree, right-click **ABCProject** and select **Version -> Share**.



The **Share Project** wizard opens.



__ 2. Next to **Providers**, select **CVS**.

__ 3. Verify that the correct path is selected under **Locations**.

__ 4. Click **Finish**.

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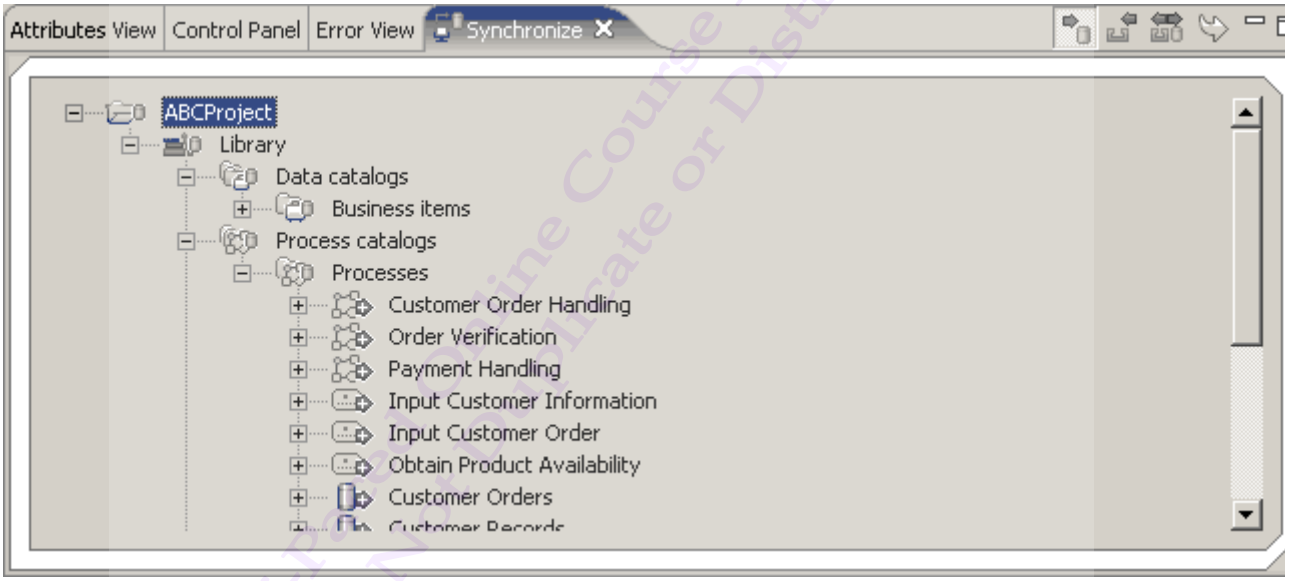
Note

If you clear the **Synchronize** check box, the **Synchronize** view will not be opened automatically after you click **Finish**. To open the **Synchronize** view later, right-click your project and select **Version -> Synchronize**.

__ 5. If you encounter the **Authentication Error** message window, re-enter your password.

The CVS server will perform an authentication procedure and then create a folder with the same name as the project in your CVS repository. None of the objects in the project have been saved to the repository at this point.

This will also open a new view in the Business Modeling perspective. This view will list every component in your project that has been added or modified since it was last committed.



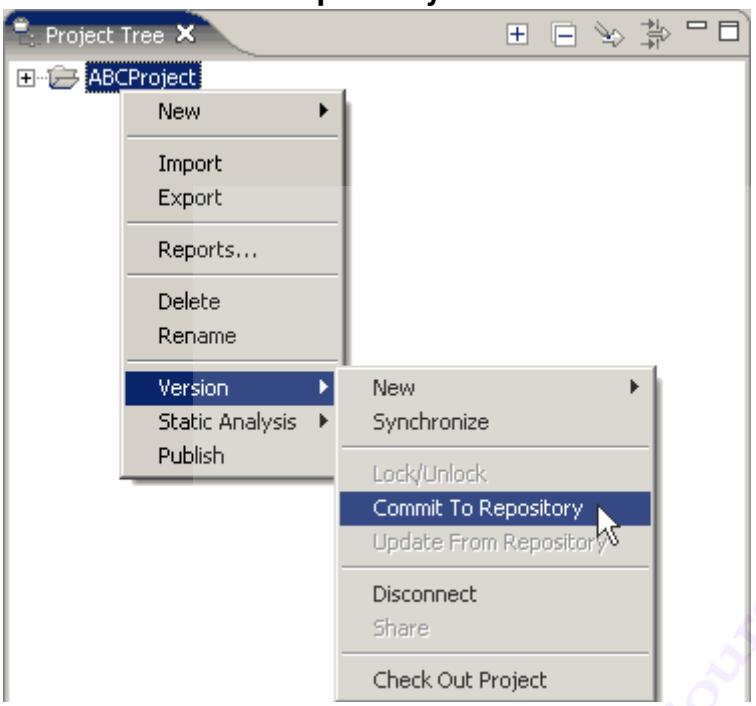
You do not have to perform this synchronization step; instead, you can directly commit the project to the CVS repository since it is a new project.

When working with existing projects from a CVS repository, you should use the Synchronize command as a final check of what you are putting into the repository.

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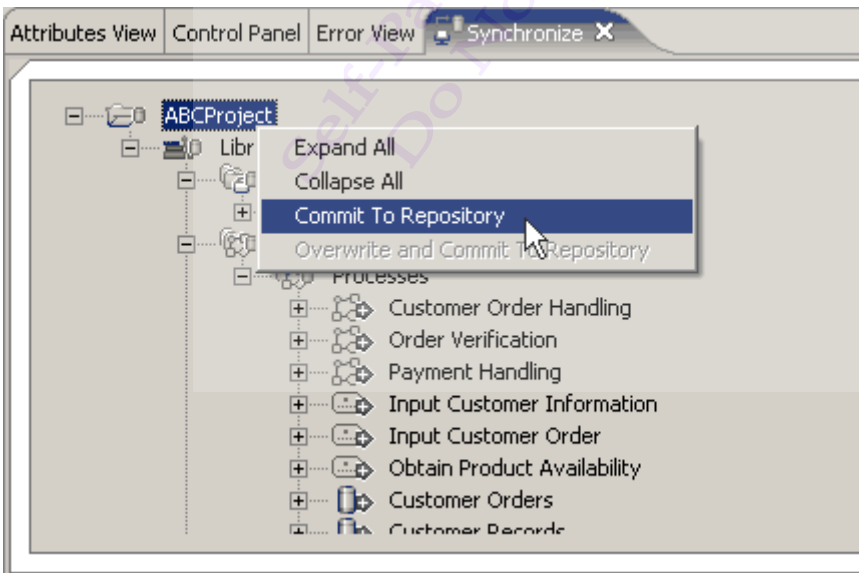
__ 6. To send the components of your project to the CVS repository, you must commit them. From the **Project Tree** view, right-click the project and select **Version -> Commit To Repository**.



Note

Alternative method: From the **Synchronize view** in the bottom-right pane, right-click **ABCProject** and select **Commit To Repository**.

The **Commit To Repository** option displays when your local workspace contains the initial or most recent version of the element.



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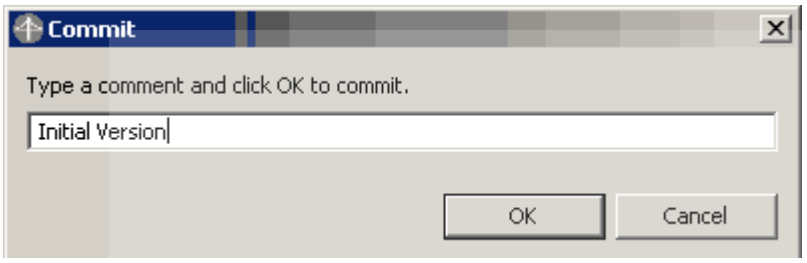
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You can also commit individual resources instead of sending the entire project. Since this is the first time the project is being committed, you should send the entire project. Later, you can commit only the components you changed.

Note: Simulation profiles and snapshots cannot be committed to the repository.

__ 7. Executing the Commit command opens a dialog that prompts you for a comment. Enter `Initial Version` as the comment and click **OK**.



The tool will connect to the repository and transfer all of the components of the project to the CVS repository. This process can take up to thirty minutes to complete. Assuming there are no conflicts or errors, you have successfully created your first version.

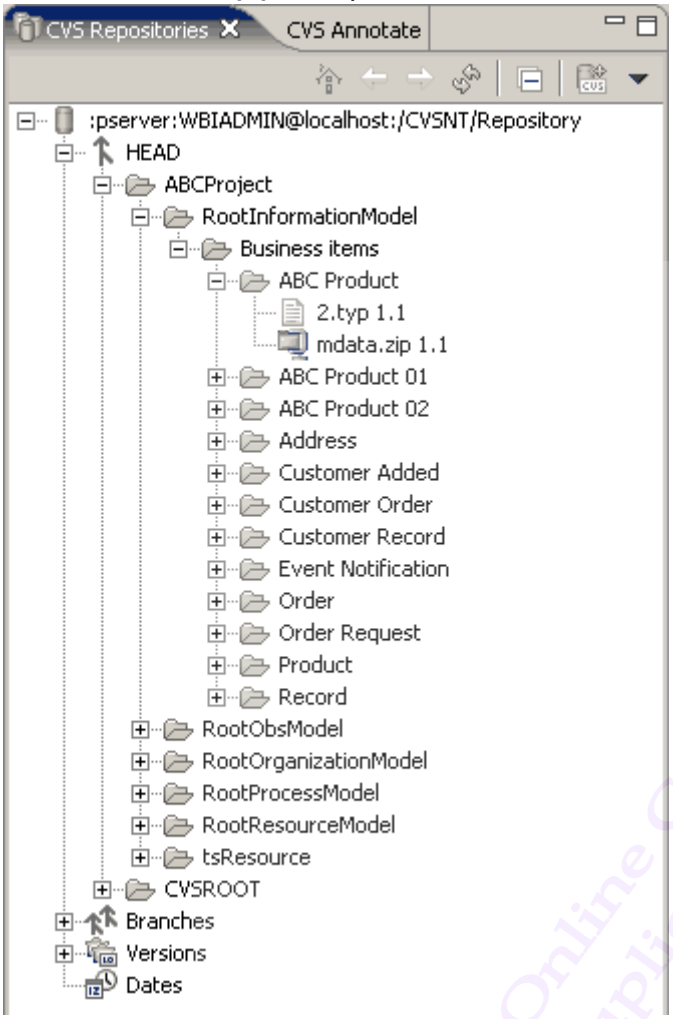
__ 8. You can confirm that the components have been committed by switching to the **CVS Repository Exploring** perspective.



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__ 9. Click the **(+)** to expand the structure to browse the CVS repository.



Part 5: Making and managing changes in your project

In this section of the lab, you will make modifications to your project, compare revisions, and examine object histories.

__ 1. Switch to the **Business Modeling** perspective.

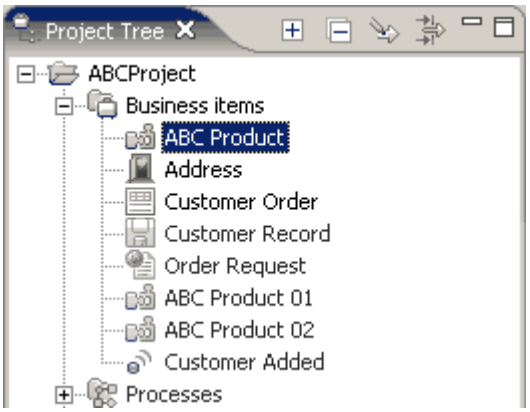
__ 2. Add a new attribute called **Product Description** to the ABC Product business item:

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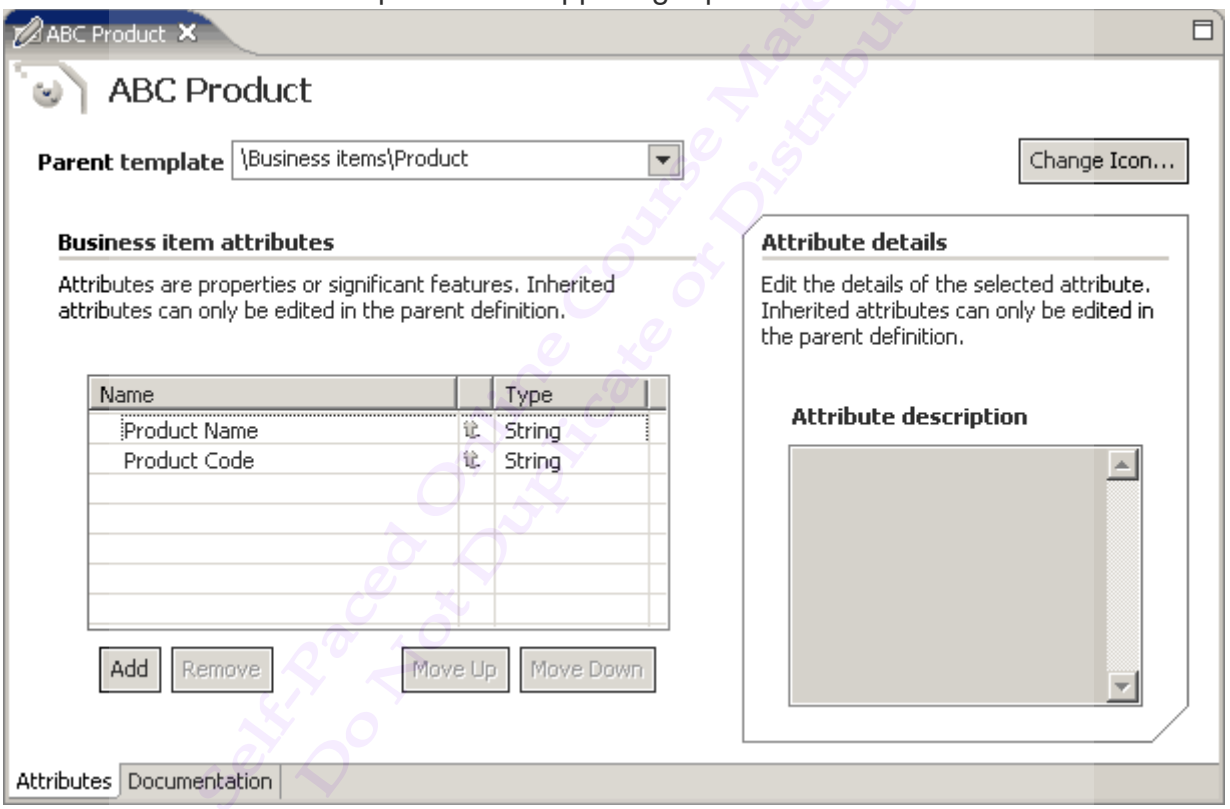
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__ a. From the Project Tree, double-click **ABCProject** -> **Business items -> ABC Product**.



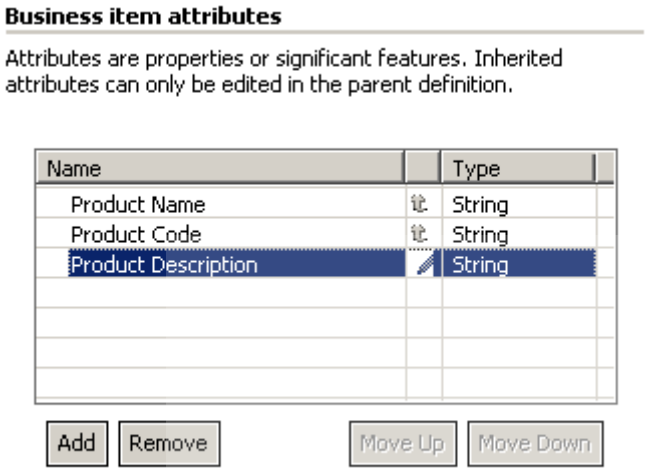
The business item editor opens in the upper right pane.



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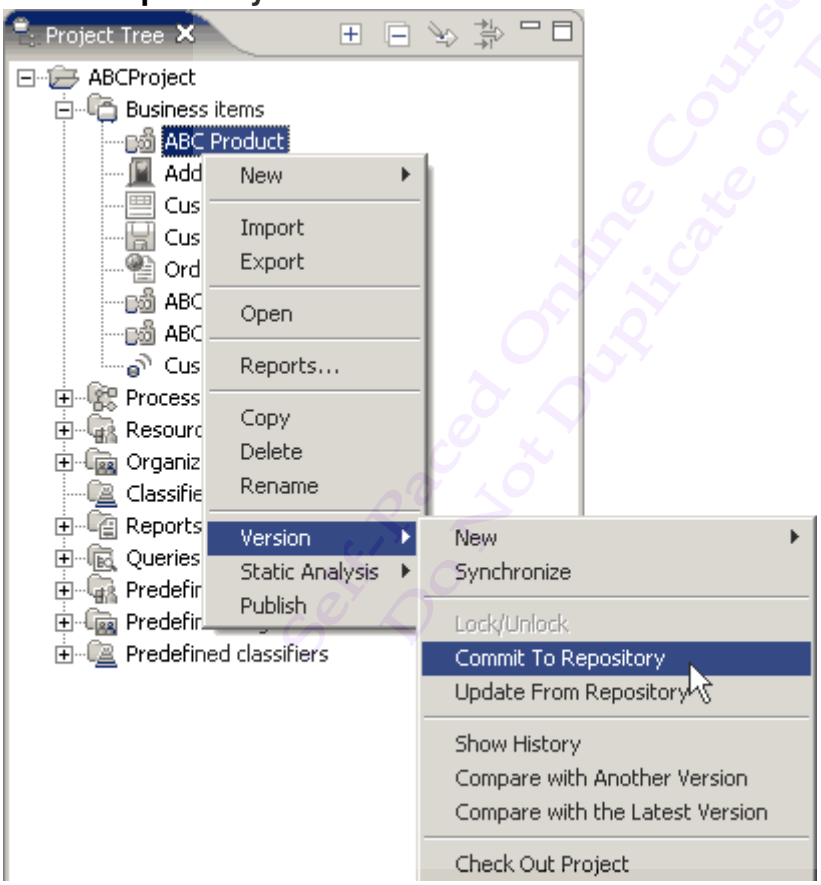
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__ b. Click **Add** to add a new business item attribute called `Product Description`.



__ c. Save changes (**Ctrl+S**).

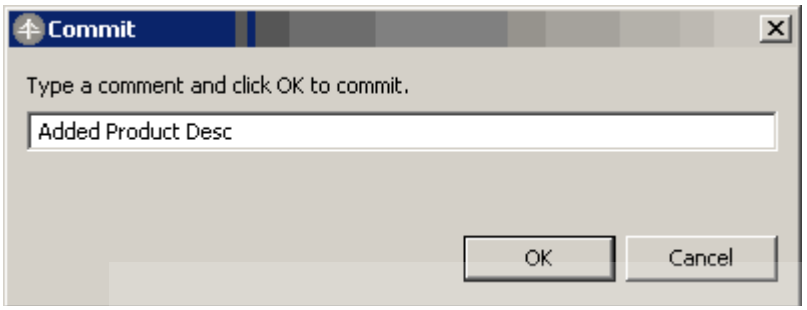
__ 3. In the Project Tree, right-click **Business items** and select **Version** -> **Commit To Repository**.



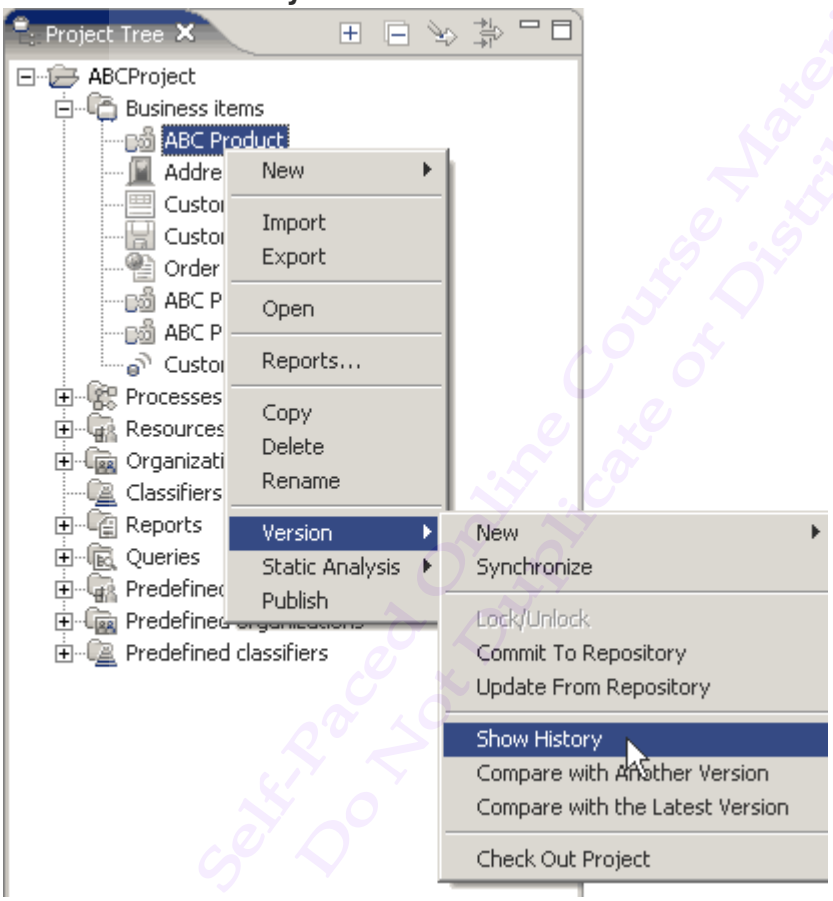
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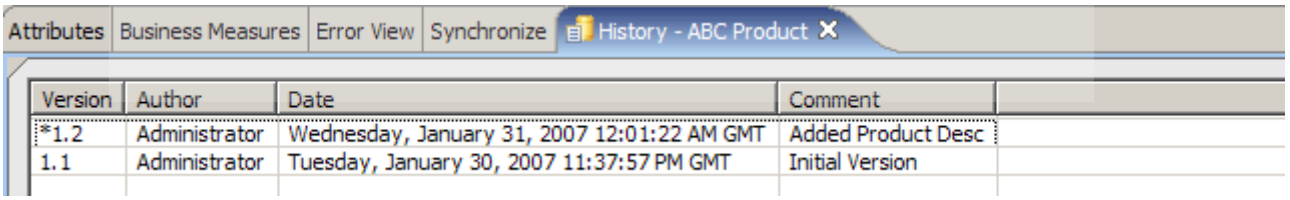
__ 4. Enter `Added Product Desc` as a comment and click **OK**.



__ 5. Once you have committed to the repository, you can view the history of the component. In the Project Tree, right-click **ABC Product** and select **Version -> Show History**.



The **History view** opens and shows you the versions of the component and the comments associated with each version.



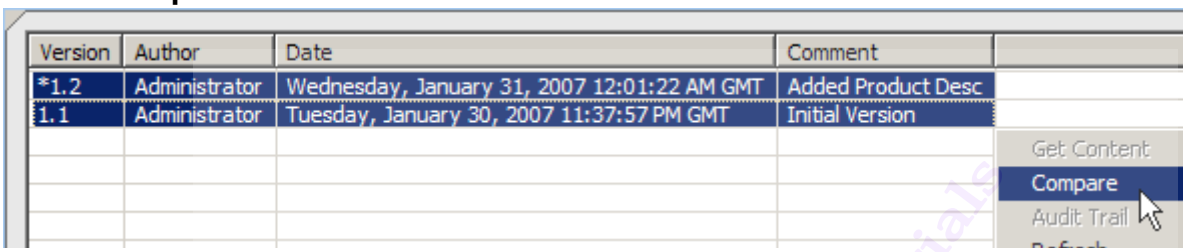
If you want to return to a previous version of a component, make certain that it is not open in any editor, and then right-click the older version in the **History** view

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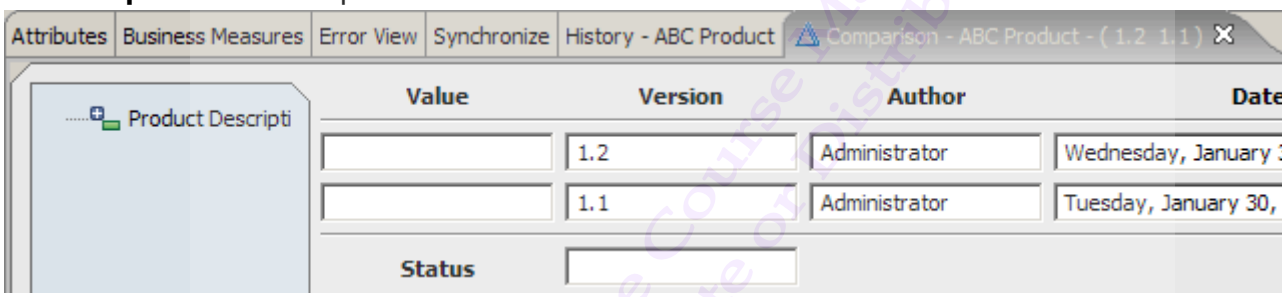
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and select **Get Content**. The tooling will connect to the repository and retrieve the component. Open the component in an editor to verify that the previous version was successfully retrieved.

__ 6. To examine the differences between two versions, select both rows in the **History view** (hold the **Shift** key while clicking each row), and then right-click and select **Compare**.



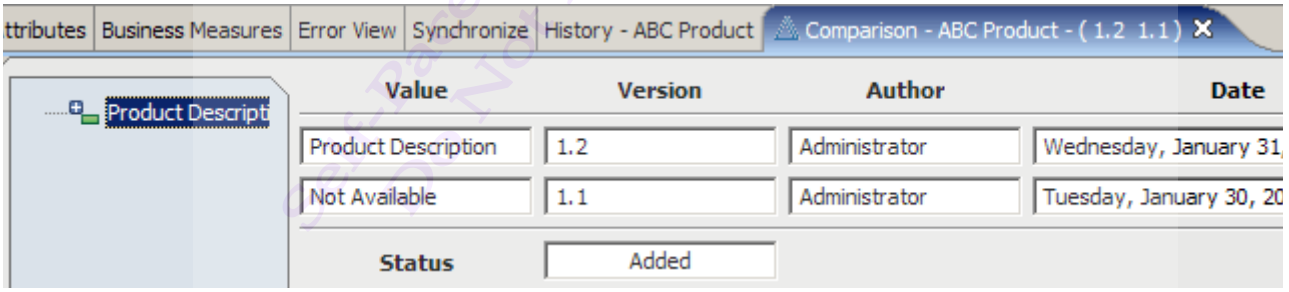
The tool connects to the repository and retrieves information regarding both versions, and the **Comparison** view opens.



By default, the **Comparison** view displays any attributes that have changed, when they changed, and who changed them.

__ 7. Click **Product Description** in the **Comparison** view.

The corresponding values, versions, author, and date are displayed.



Part 6: Creating a new workspace and setting up a CVS client

In this section of the lab, you will retrieve a project from the CVS repository that was not previously in your workspace. This is the sort of activity you would perform if you had a new team member on your project, installed the Modeler on a new machine, or otherwise no longer had access to the local project.

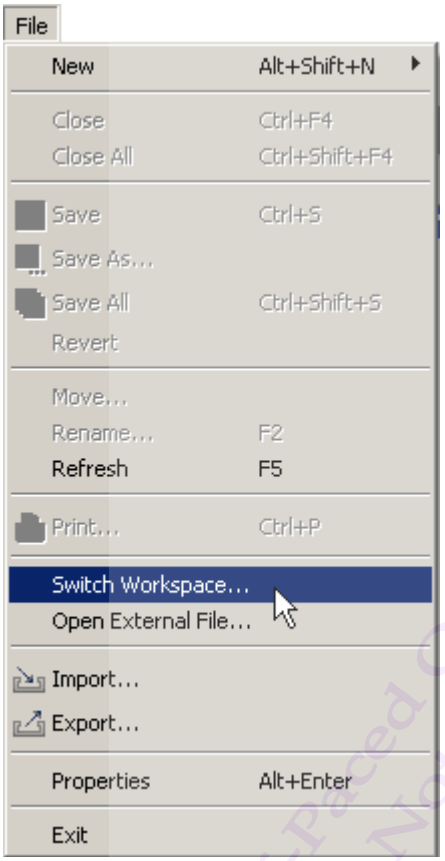
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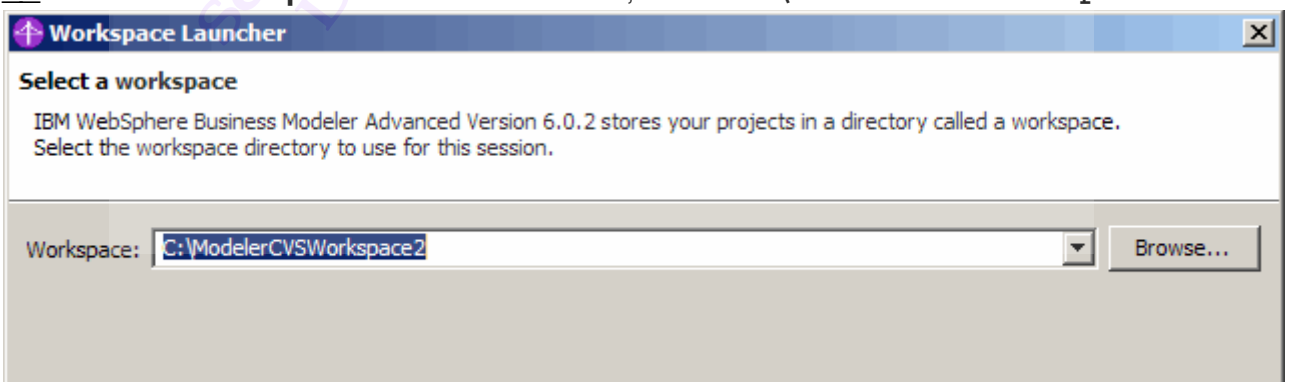
You can check out a project from the CVS server. This enables you to work with and modify a local copy of the project. Before you can check out a project, you must add the repository location to the **CVS Repositories** view in the CVS Repository Exploring perspective. Note that you can only check out a project if your local machine does not already have a project with the same name. If it does, you must delete the existing project before you can check out the CVS project.

In this section of the lab, you will be emulating a second user. The following steps walk through the creation of a new workspace and setup of the CVS client a second time.

__ 1. From the menu toolbar, select **File** -> **Switch Workspace**.



__ 2. In the **Workspace Launcher** window, enter: `C:\ModelerCVSWorkspace2`


Workspace Launcher
Select a workspace
IBM WebSphere Business Modeler Advanced Version 6.0.2 stores your projects in a directory called a workspace.
Select the workspace directory to use for this session.
Workspace: C:\ModelerCVSWorkspace2
Browse...

__ 3. Click **OK**. Modeler closes and restarts.

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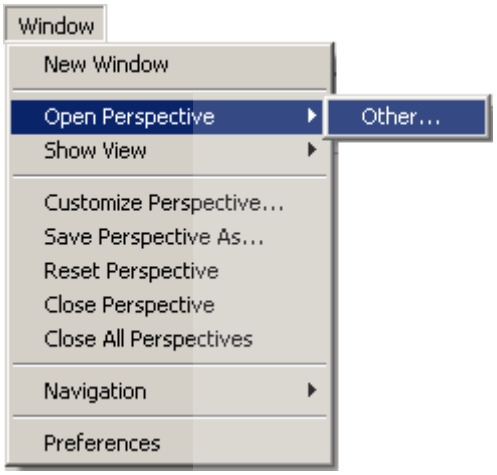
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__ 4. In the **Quickstart wizard** dialog box, click **Cancel**.

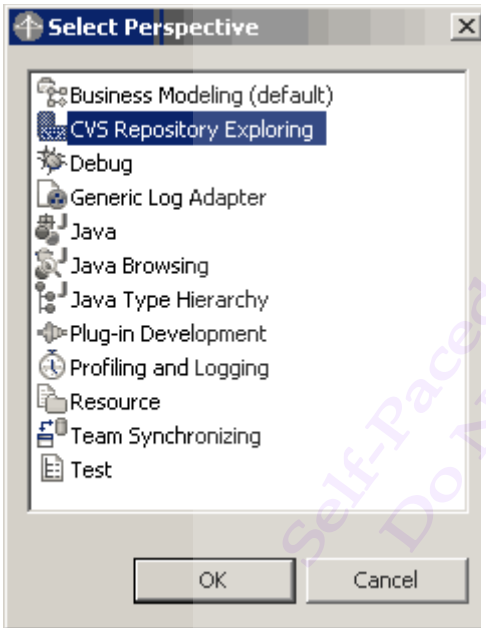
__ 5. Close the **Welcome** pane.

__ 6. Switch to **4-pane layout**.

__ 7. From the menu bar, click **Window -> Open Perspective -> Other**.



__ 8. Select **CVS Repository Exploring** to open the **CVS Repository Exploring** perspective.



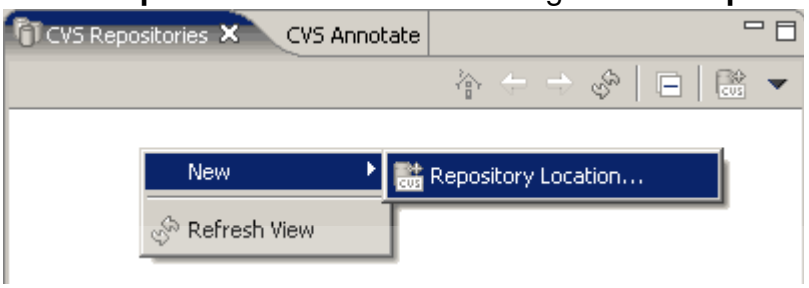
__ 9. Click **OK**.

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__ 10. Add a new repository location by right-clicking the white space of the **CVS Repositories** view and selecting **New** -> **Repository Location...**



__ 11. Enter your CVS server's information.

__ a. **Host:** `localhost`.

__ b. **Repository Path:** `/CVSNT/Repository`

__ **c.** **User:** `[Window logon ID of your computer]`

For students enrolled in self-paced courses, enter the Windows logon ID of your computer.

__ d. **Password:** `[Window logon password of your computer]`

For students enrolled in self-paced courses, enter the Windows password of your computer.

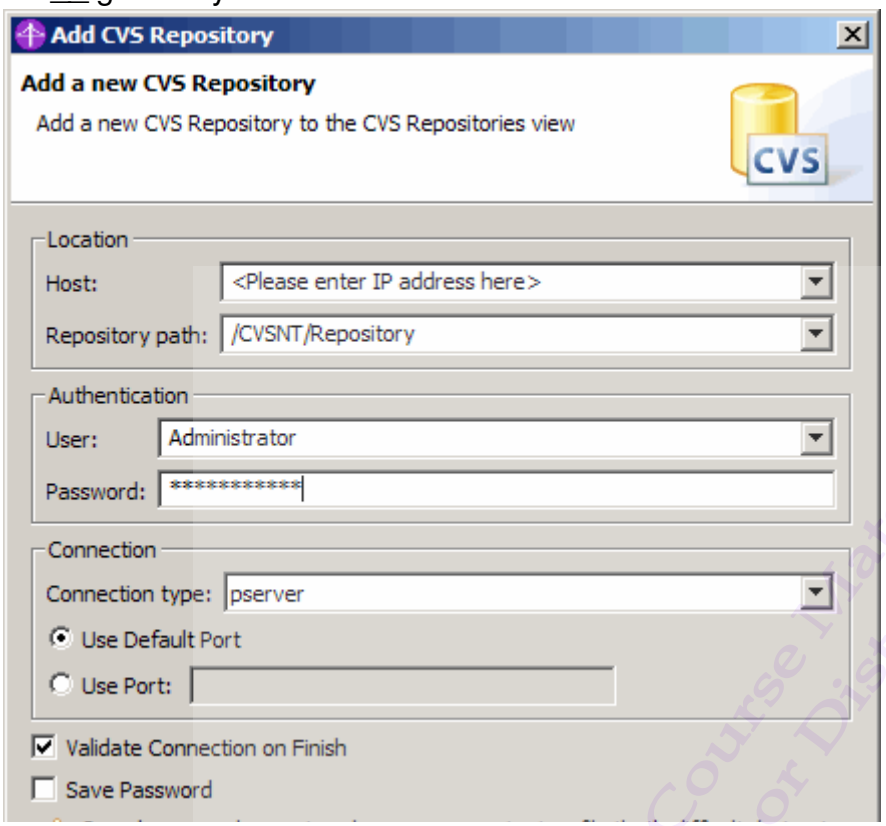
__ **e.** **Connection Type:** `pserver`

__ f. Verify that the **Use Default Port** option is selected.

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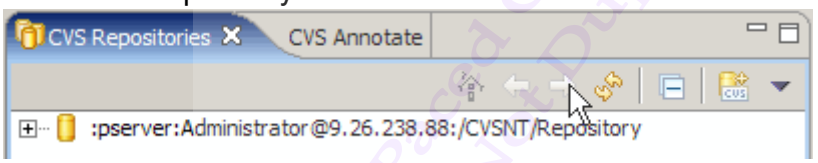
__ g. Verify that the **Validate Connection on Finish** check box is checked.



__ 12. Click **Finish**.

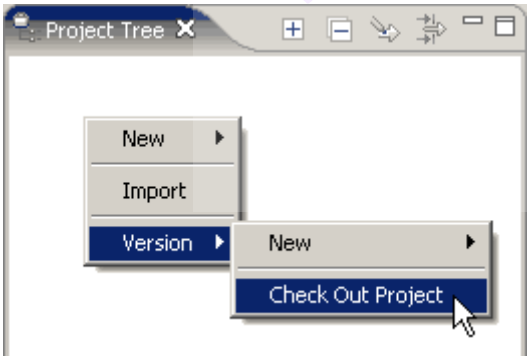
__ 13. If you encounter the **Unable to Validate** error message, click **Yes**.

The CVS Repository is created.



__ 14. Return to the **Business Modeling** perspective by selecting the **Business Modeling** button at the top right corner of the screen.

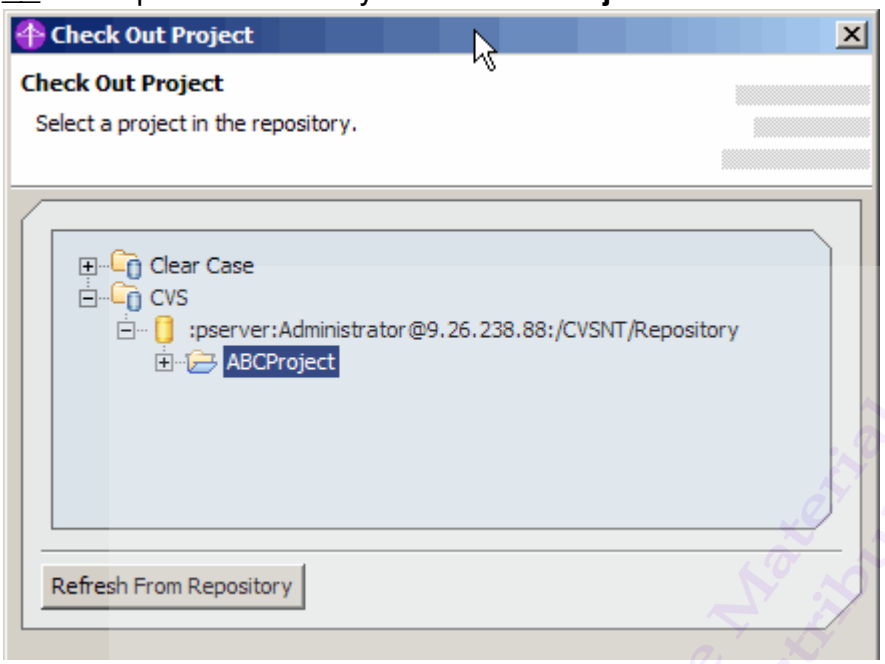
__ 15. In the Project Tree, right-click and select **Version -> Check Out Project**.



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__ 16. Expand **CVS** until you find **ABCProject**.



__ 17. Select **ABCProject** and click **Finish**.

ABCProject is now available in the Project Tree.



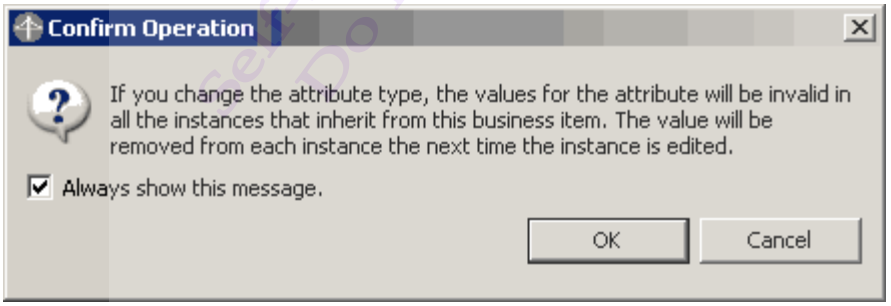
__ 18. Add another new attribute called `Price` to the ABC Product business item:

__ a. From the Project Tree, double-click **ABCProject** -> **Business item** -> **ABC Product**.

__ b. Click **Add** to add a new business item attribute called `Price`.

__ c. Change the type to **Integer**.

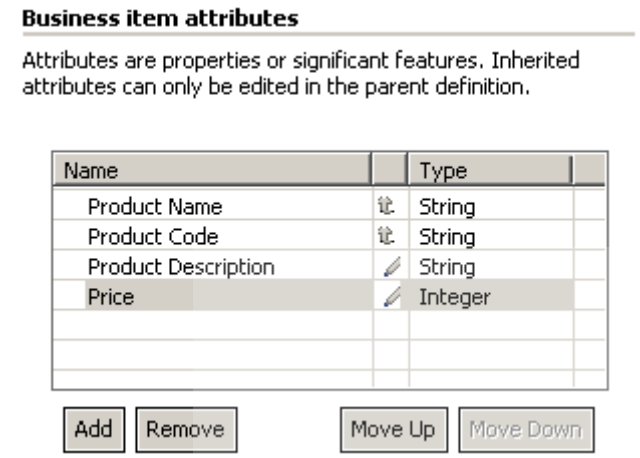
__ d. If the **Confirm Operation** dialog box appears, click **OK**.


Confirm Operation
If you change the attribute type, the values for the attribute will be invalid in all the instances that inherit from this business item. The value will be removed from each instance the next time the instance is edited.
Always show this message.
OK
Cancel

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There should be four attributes displayed:

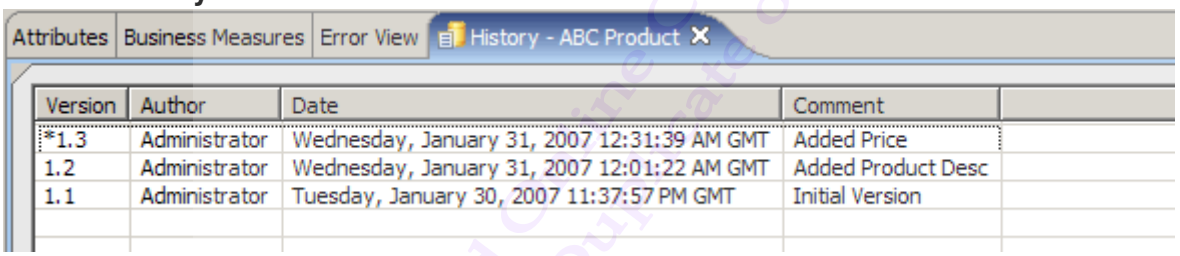


__ 19. Save changes (**Ctrl+S**).

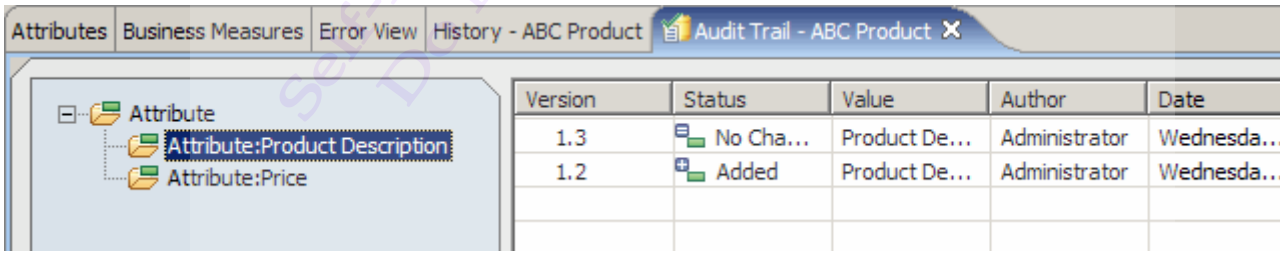
__ 20. In the Project Tree, right-click **Business items** and select **Version -> Commit To Repository**.

__ 21. Enter `Added Price` as a comment and click **OK**.

__ 22. Right-click **ABC Product** from the Project Tree and select **Version -> Show History**.



__ 23. Select all three revisions in the **History** view, right-click, and select **Audit Trail**. The tool connects to the repository and retrieves information regarding all versions, and the **Audit Trail** view opens.



As you select attributes in the left pane of the view, you will see a listing of information about when changes were made. In the example above, you will see that the attribute **Product Description** was added in version 1.2, and there were no changes to the attribute in version 1.3. If you select **Attribute: Price**, you will see that the **Price** was added in version 1.3.

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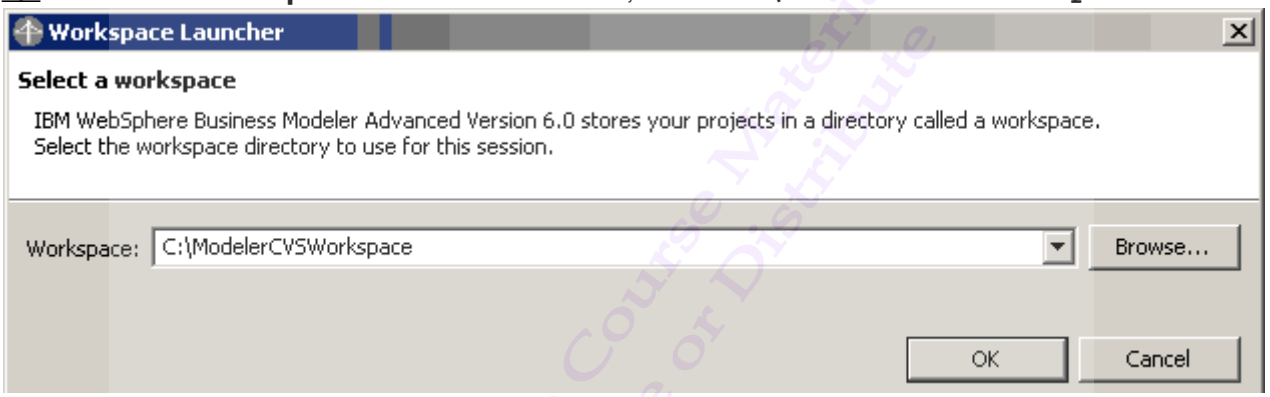
For some components such as tasks in a process, you can also view more details. Perform an audit of a process that has had three or more versions, and then select one of the changed attributes. You should see the **Show Details** command. If you select this command, the **Comparison** view will open and allow you to see the specific values that have changed.

Part 7: Update project from repository

In this section of the lab, you will switch to the workspace of the first user and synchronize the ABC Project.

__ 1. From the **Menu** toolbar, select **File** -> **Switch Workspace**.

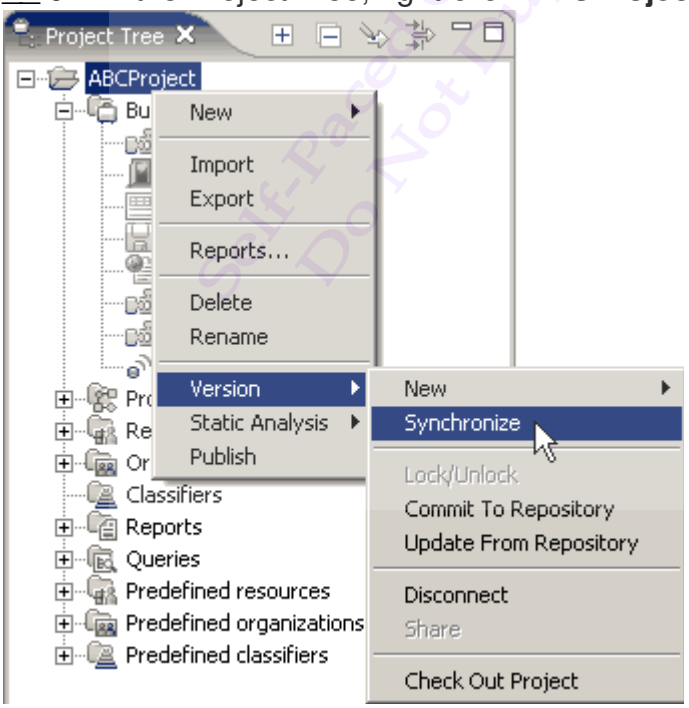
__ 2. In the **Workspace Launcher** window, enter `C:\ModelerCVSWorkspace`.



__ 3. Click **OK**. Modeler closes and restarts.

__ 4. If the **Quickstart wizard** dialog box appears, click **Cancel**.

__ 5. In the Project Tree, right-click **ABCProject** and select **Version -> Synchronize**.

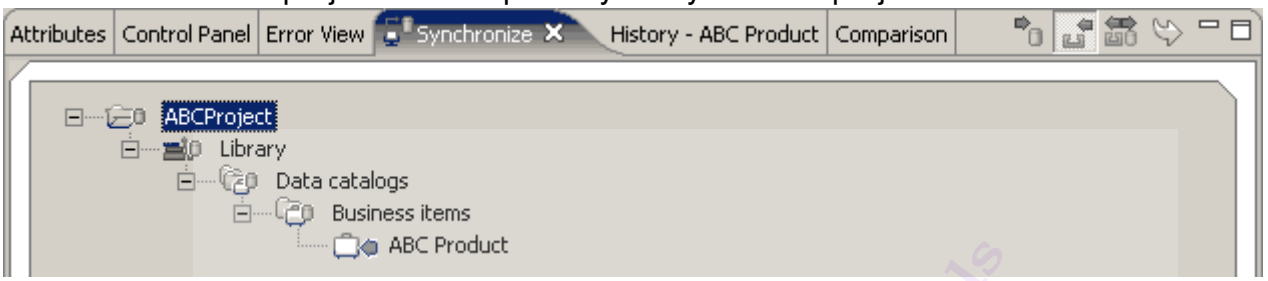


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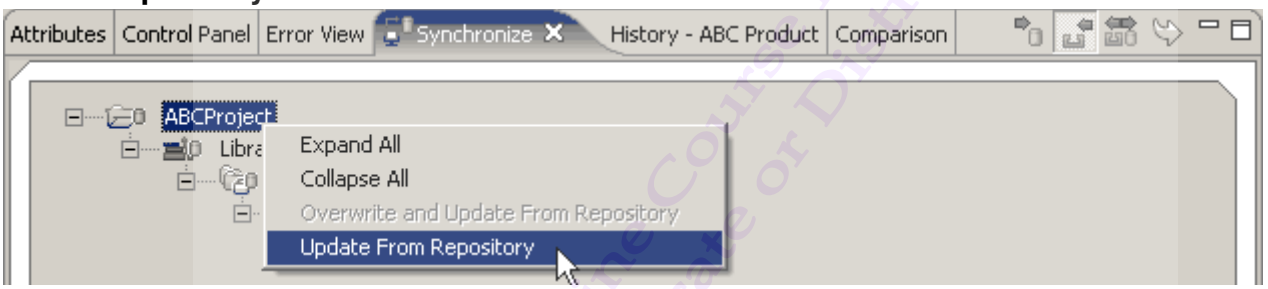
__ 6. If you encounter an authentication error, enter the password to the CVS server and click **OK**.

__ 7. In the **Synchronize** pane, expand the nodes of **ABCProject** to find the differences between the project in the repository and your local project.



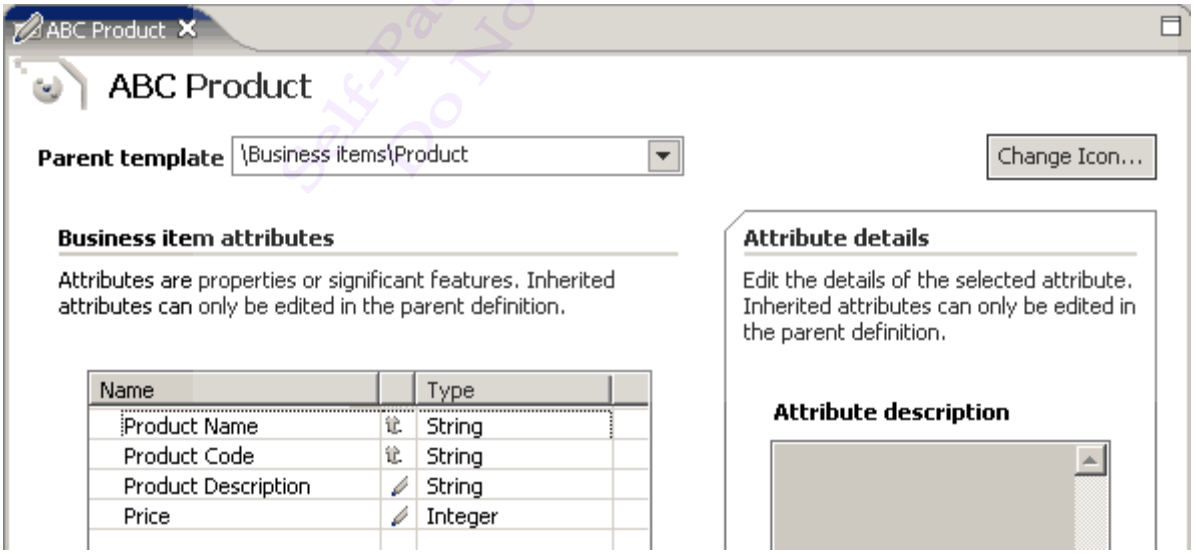
Since ABC Product was the only element modified, the **Synchronize** view lists only this item.

__ 8. In the **Synchronize** view, right-click **ABCProject** and select **Update From Repository**.



__ 9. Once the local project has been updated with the changes, the **Synchronize** view no longer displays any elements.

__ 10. In the Project Tree, double-click the **ABC Product** business item to verify that it has been updated with the **Price** attribute.



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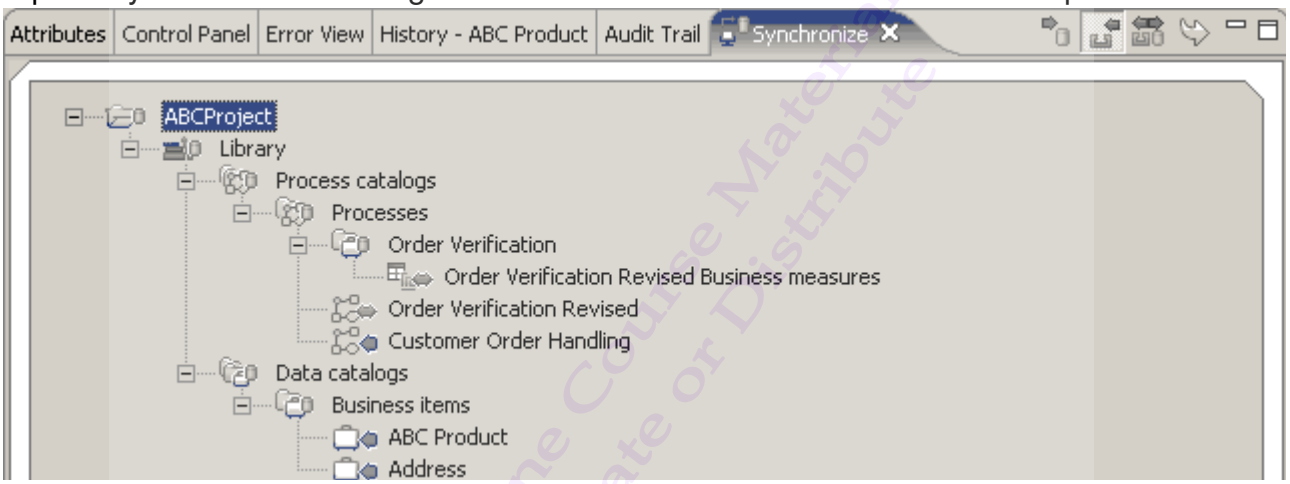
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Now you may explore the project in your local machine, show the history of components, and so on. Note that all of the functions you explored earlier in this lab are available. Once you have retrieved the project, you can also retrieve earlier versions of the components by using the **Get Content** command from the **History** view.

Part 8: Working in a multiple developer environment

When you have multiple developers working on a project, additional functions become relevant. In the screen capture below, you can see what happens if a different person makes changes to the repository: the local workspace is out of sync with the CVS repository. The file was changed on the server and exists in the local workspace.



In dealing with situations like this, you have options.

Option 1

You can accept that the server version is correct. Right-click the project and select **Version -> Update**. This will retrieve the most current version of all components of the project.

Option 2

You can treat each case individually. Right-click the project and select **Version -> Synchronize**. Expand the project in the **Synchronize** view, and in each case of a conflict, resolve it by either updating it or overwriting and updating it.

Feel free to work with another student in the workshop to explore this functionality.

You may play the flashcard game after completing the lab exercise.

Part 9: Review questions

Your instructor will review the following questions with you.

__ 1. Which two version control systems does the Modeler support?

_____

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__ 2. What is the difference between “commit” and “check out” when using version control in Modeler?

_____

__ 3. Which version control system allows users to lock and unlock elements in Modeler?

_____

__ 4. What is the difference between “update” and “synchronize” when using version control in Modeler?

_____

__ 5. What is the function of “get content”?

_____

END OF EXERCISE

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Exercise 11.WebSphere Business Modeler Publishing Server

What this exercise is about

This lab exercise walks through the functions and features of WebSphere Business Modeler Publishing Server.

What you should be able to do

At the end of the lab, you should be able to:

- Set up your Web browser
- Update a PC host file
- Log into the Publishing Server
- Review draft projects
- Add comments
- Edit comments
- Export comments
- Add a response
- Log in as a view-only user

Requirements

Download the *Other Software files for VB184* from the eLearning site.

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Exercise instructions

IBM WebSphere Business Modeler Publishing Server allows users without WebSphere Business Modeler to view and comment on business process models. The Publishing Server displays the models in a Web browser using a set of portlets. The portlets generally correspond to the four panes used by WebSphere Business Modeler.

In this exercise, you connect to the Publishing Server so that you can publish projects. Once you have published a project, other people can use a Web browser to view and comment on elements of the project such as processes, business items, and resources.

Part 1: Setting up your Web browser

To display process and organization diagrams, your Internet browser requires an SVG (Scalable Vector Graphics) browser plug-in. There are many downloadable SVG plug-ins available on the Internet. The recommended Web browser is Microsoft Internet Explorer, and the recommended SVG browser plug-in is the Adobe SVG Viewer. The following procedure describes how to set up Internet Explorer with SVG Viewer.

Note: Adobe SVG Viewer levels V3.0, V3.0.1, and V3.0.2 are all acceptable. At the date of this writing, V3.03 does *not* work yet.

__ 1. From the `C:/VB184/software` folder, double-click the `SVGView.exe` file.

__ 2. Follow the instructions to install the SVG Viewer onto your computer.

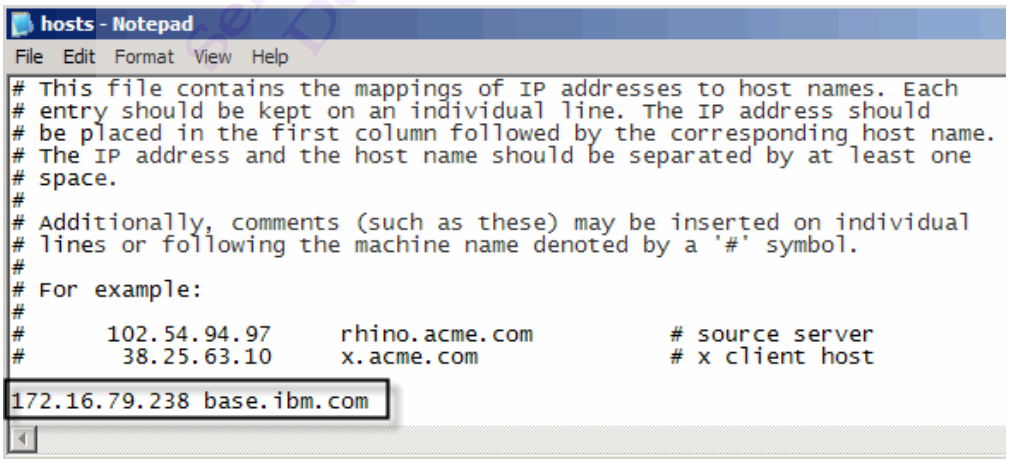
Part 2: Updating the PC host file

You must update your PC host file to enable your system to access the server.

__ 1. Locate your **hosts** file; on a Windows XP system, this file is typically found in folder `C:\WINDOWS\system32\drivers\etc`

__ 2. Edit the file in Notepad, and add the following IP address and server name right below the localhost:

`172.16.79.238 base.ibm.com`


hosts - Notepad
File Edit Format View Help
This file contains the mappings of IP addresses to host names. Each
entry should be kept on an individual line. The IP address should
be placed in the first column followed by the corresponding host name.
The IP address and the host name should be separated by at least one
space.
#
Additionally, comments (such as these) may be inserted on individual
lines or following the machine name denoted by a '#' symbol.
#
For example:
#
102.54.94.97   rhino.acme.com   # source server
38.25.63.10   x.acme.com   # x client host
172.16.79.238 base.ibm.com

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__ 3. Click **File -> Save** to save the file.

Part 3: Accessing the WebSphere Education Publishing Server using Aventail

To gain access to the WebSphere Education Publishing Server using the Aventail gateway, you must authenticate your credentials. This is necessary because you will be accessing the Publishing Server through the Internet connection.

__ 1. To authenticate your credentials, open an Internet Explorer browser window and navigate to:

`https://we-socks.pok.ibm.com`

User ID: `wbmps_user`

Password: `wbi42x@IBM`

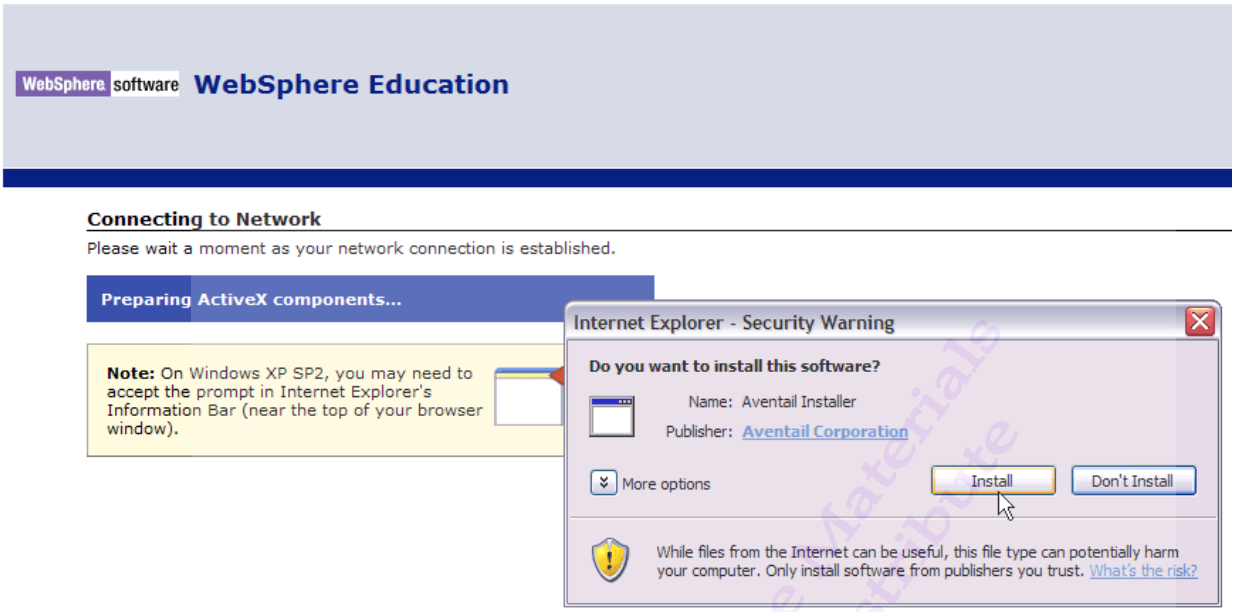


__ 2. Click **Log in**.

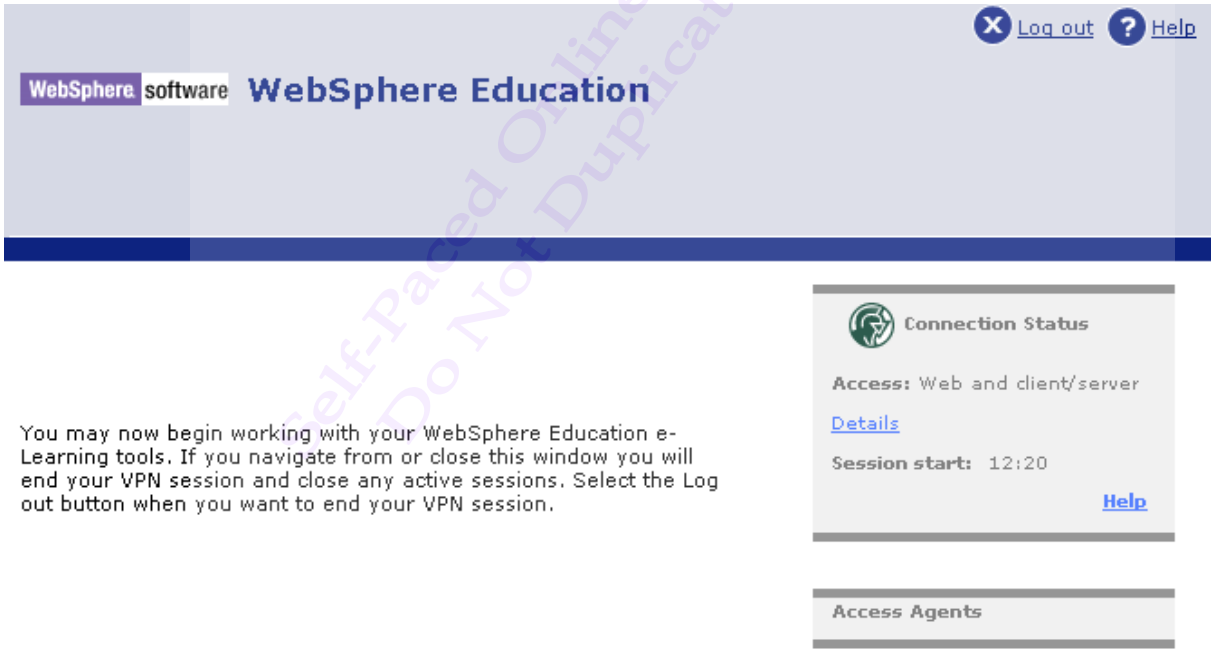
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__ 3. If security warning window appears indicating that you must install ActiveX for Aventail, click **Install** to install the Aventail installer.


WebSphere software
WebSphere Education
Connecting to Network
Please wait a moment as your network connection is established.
Preparing ActiveX components...
Note: On Windows XP SP2, you may need to accept the prompt in Internet Explorer's Information Bar (near the top of your browser window).
Internet Explorer - Security Warning
Do you want to install this software?
Name: Aventail Installer
Publisher: Aventail Corporation
More options
Install
Don't Install
While files from the Internet can be useful, this file type can potentially harm your computer. Only install software from publishers you trust. What's the risk?

Note: When your credentials have been authenticated, you will see the WebSphere Education e-Learning Zone welcome window. To access the server, you must ensure that the **Connection Status** indicator on the right displays '**Access: Web and client/server**'. To keep your session active, *do not close or navigate away from this window.*


Log out
Help
WebSphere software
WebSphere Education
You may now begin working with your WebSphere Education e-Learning tools. If you navigate from or close this window you will end your VPN session and close any active sessions. Select the Log out button when you want to end your VPN session.
Connection Status
Access: Web and client/server
Details
Session start: 12:20
Help
Access Agents

You can now use your Internet Explorer browser to access the Publishing Server.

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Part 4: Logging into the Publishing Server

__ 1. Open your Internet Explorer browser and navigate to:
`http://base.ibm.com:9081/wps/myportal/WelcomeToCollaboration`

Note that the address is case-sensitive.

You may wish to bookmark this address, as you will use it often during this exercise.

__ 2. On the logon screen, enter the following User ID and password:

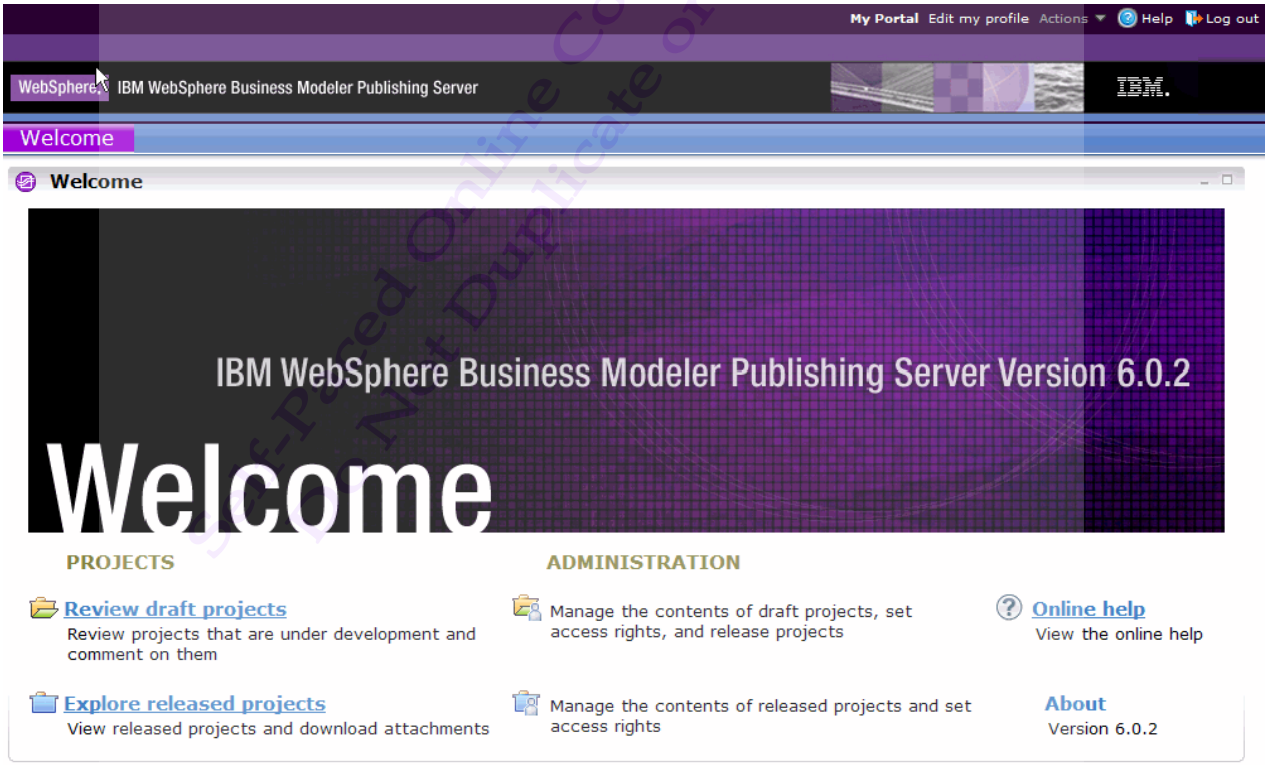
User ID: [student number] (case sensitive)

password: [course access password] (case sensitive)

Note: Your student number and password should have been sent to you during the course registration process. If you do not have your student number or password, e-mail **WebSphere_skills@us.ibm.com** to get them.

__ 3. Click the **Log in** button.

The IBM WebSphere Business Modeler Publishing Server Version 6.0.2 welcome page will display.

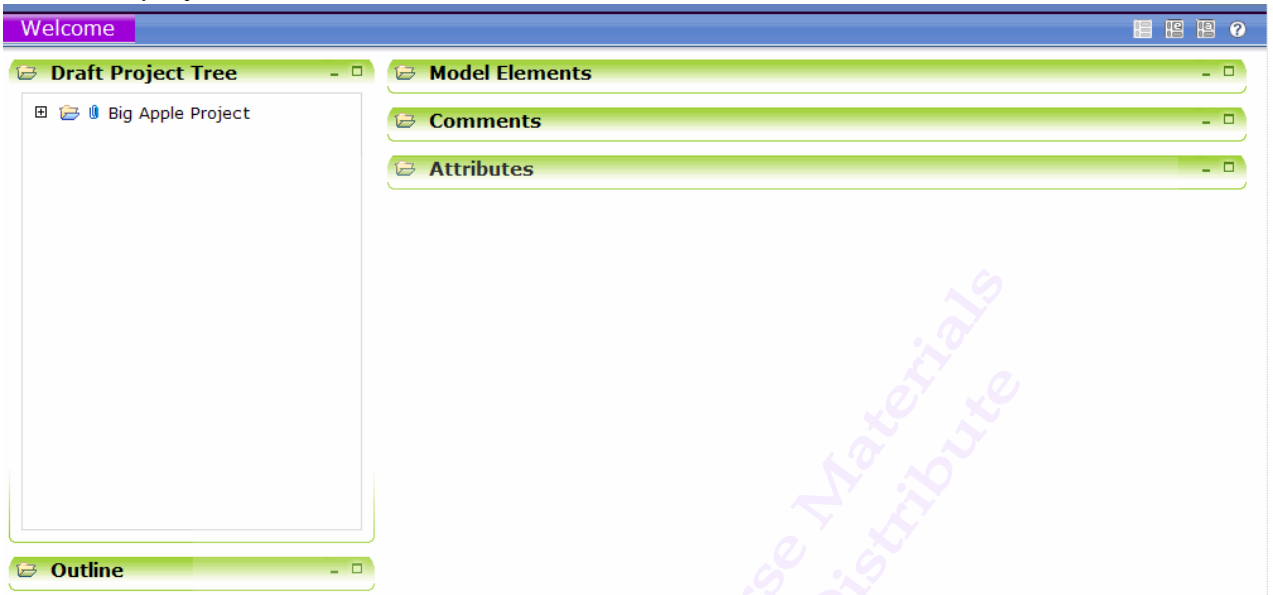


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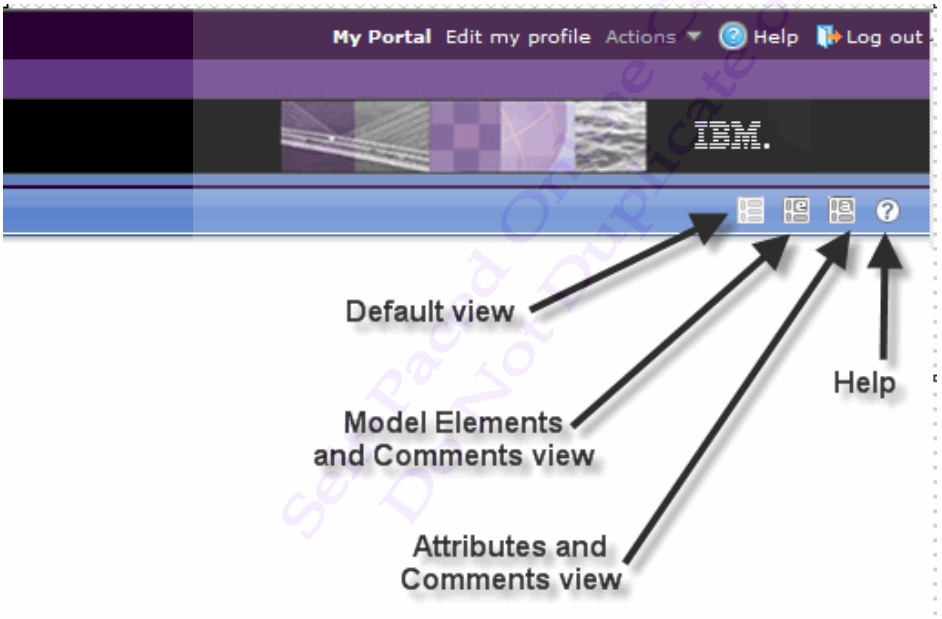
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Part 5: Reviewing draft projects

__ 1. On the welcome page, click the **Review draft projects** link. The default view is displayed.



__ 2. Examine the icons on the page header.

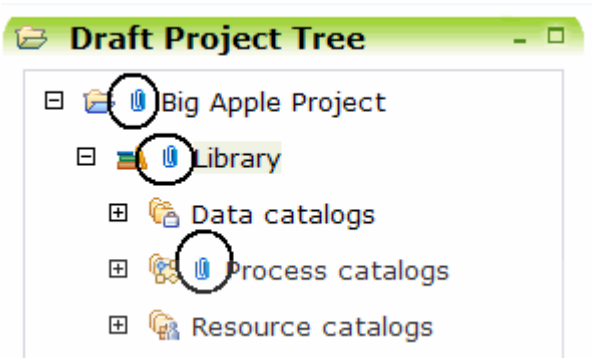


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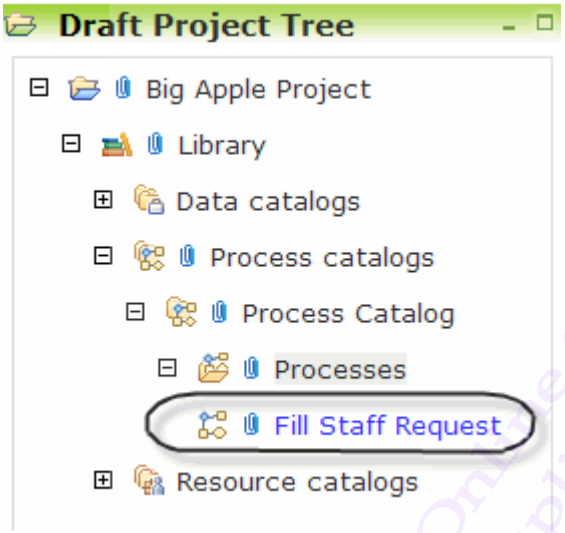
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__ 3. Expand the **Draft Project Tree**.

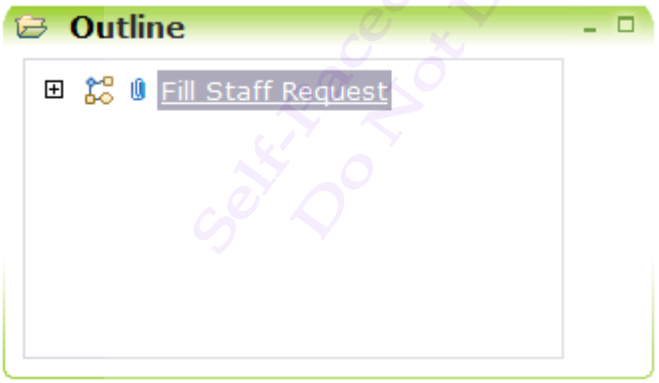


A paper clip symbol represents an attachment or link on the project or elements.

__ 4. After expanding the **Draft Project Tree**, click the **Fill Staff Request** process.



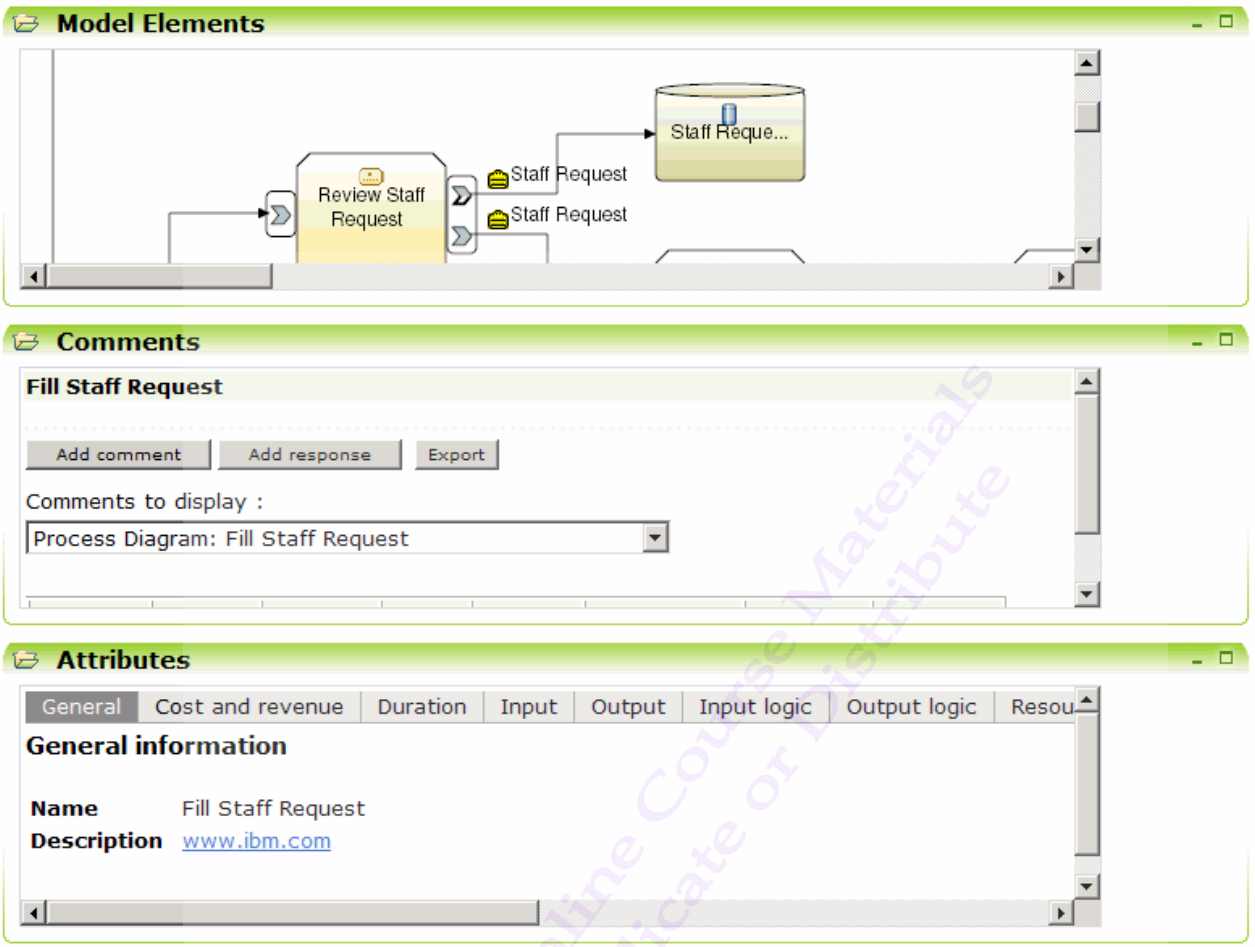
The left panel should display:



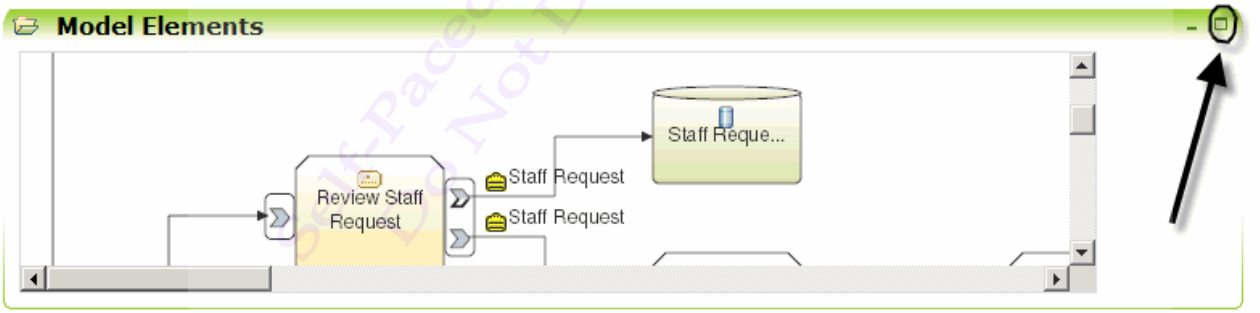
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The right panel should display:



__ 5. Each view can be maximized to display the full view. To view the process diagram only, click **Maximize**.



__ 6. Examine the diagram in the **Model Elements** portlet, which is similar to Modeler's diagram view.

__ 7. Examine the **Attributes** portlet, which is similar to Modeler's attributes view.

__ 8. Select each tab to examine the attributes of the element.

__ 9. Examine other elements, such as resources, roles, timetable, and others in the Project Tree.

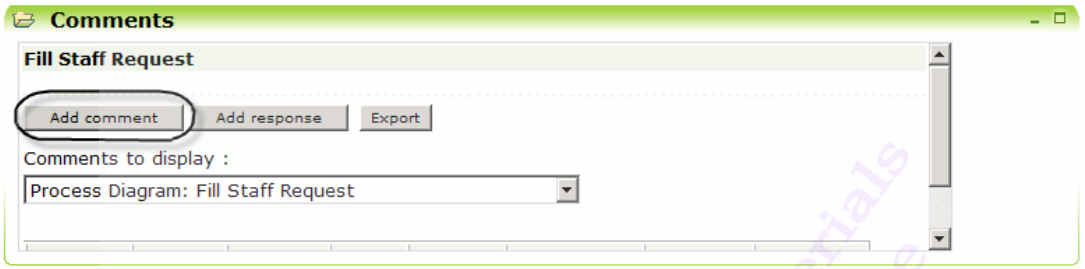
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__ 10. Examine the **Outline** portlet, which lists all of the components in the **Model Elements**.

Part 6: Adding comments

__ 1. To add a comment to the process diagram, click the **Add comment** button in the **Comments** portlet.



__ 2. To display the full view of the **Comments** portlet, click **Maximize**.

__ 3. Enter the detailed information for this comment:

Subject: {enter a subject...}

Type: {enter type of comment}

Priority: `Medium`

Status: `Open`

Details: {enter details here...}

__ 4. Use the attachment feature to attach a file and link along with your comment.

__ a. Expand the attachments.

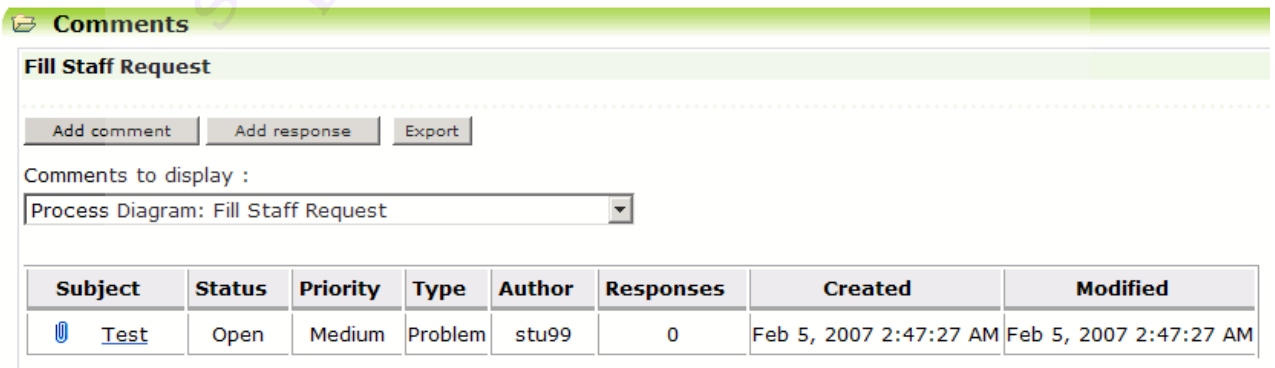
__ b. Click **Browse** to add the file using the following path:

`C:\Program Files\IBM\WebSphere\Modeler6\Doc\en\index.html`

__ c. To add the link, enter the following address:

`www.ibm.com/training`

__ d. Click **Submit** to add the new comment.



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Part 7: Editing a comment

You can edit an existing comment or delete the attachment.

__ 1. To retrieve your comment, look in the **Subject** column, and click the link for the comment that you created in the previous step.



The page will refresh to display the selected comment.

__ 2. Click the **Edit comment** button to edit the content of the comment, to attach more files, or to add more links.

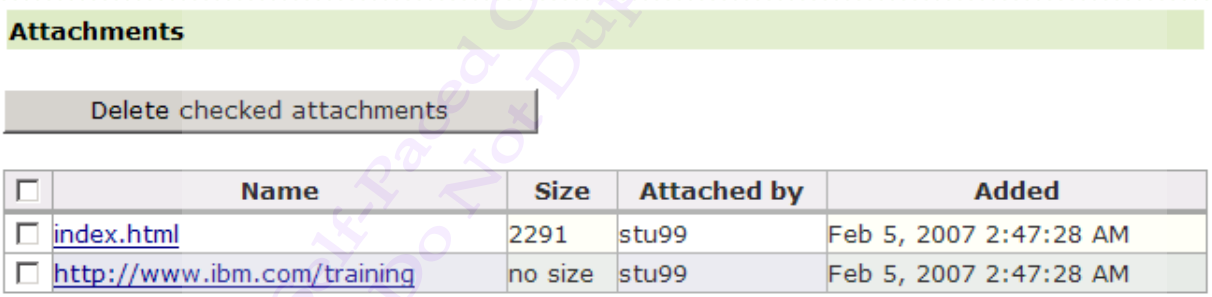


__ 3. To delete the existing attachments or links:

__ a. Click the **Attachment** button.



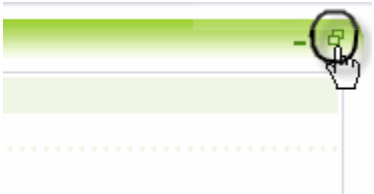
__ b. Check the box next to the attachment to be deleted, and then click the **Delete checked attachments** button.



__ 4. Click the **Return to comment view** button to return to the previous page.

__ 5. Click the **Return to the all comments view** button to return to the previous page.

__ 6. Click the **Restore** button to return to the main page.



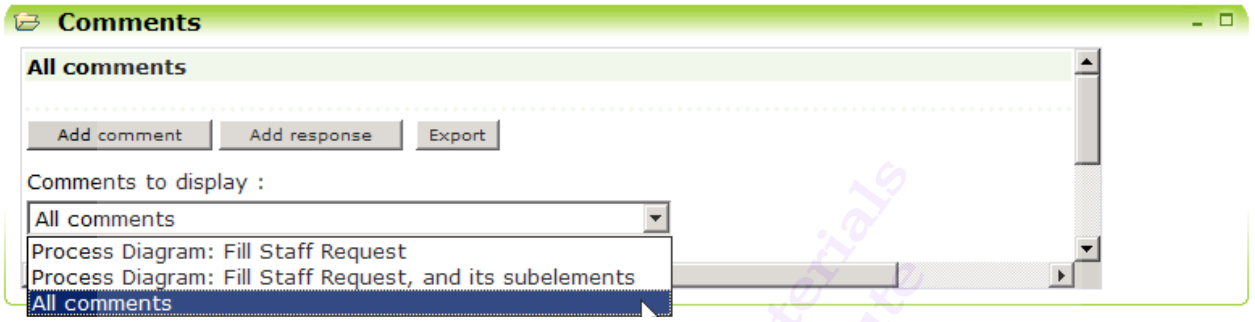
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Part 8: Exporting comments

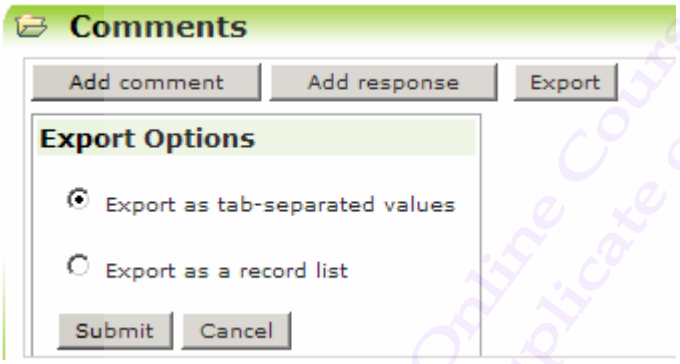
You can export some or all comments to an external file. In this section, you will export all of the comments for this project.

__ 1. To select all comments, select **All comments** from the pull-down menu of **Comments to display**:



__ 2. To export the comments, click the **Export** button in the **Comments** view.

__ 3. Two export options appear; select one of them.



__ 4. Click the **Submit** button. A file download window will open.

__ 5. Click **Open** to examine the output file.

__ 6. **Close** the `comment.txt` file.

Part 9: Adding a response

Add a response to a comment that was created by another user.

__ 1. From the Draft Project Tree, select a business item from the **Data Catalogs**.

__ 2. Maximize the **Comments** portlet.

__ 3. Select the comment to which you would like to add a response.

__ 4. In the **Comments** view, click the **Add response** button.

__ 5. Input your response in the **Details:** box.

__ 6. Click the **Submit** button to record the response.

__ 7. Click the **Comments** link again to examine the response that was just added.

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__ 8. Click **Restore** to return to the default view.

Part 10: Logging in as a view-only user

Log in as a *view-only* user to view the draft projects.

__ 1. Locate the Aventail window on your desktop.

__ 2. Open an Internet Explorer browser and navigate to:

`http://base.ibm.com:9081/wps/myportal/WelcomeToCollaboration`

Note: The URL is case sensitive.

__ 3. On the logon screen, enter the following user ID and password:

user ID: `testuser1`

password: `testuser1`

__ 4. Click the **Log in** button.

__ 5. Click the **Review draft projects** link on the welcome page. The **Main** page is displayed.

__ 6. From the **Draft Project Tree**, select any elements from the **Staffing Project**.

__ 7. In the **Comments** view, there is a comment added by another user. Highlight the entire comment that you would like to view.

Subject	Status	Priority	Type	Author	Responses	Created	Modified
Subject	Open	Medium	Problem	testadmin1	0	Aug 9, 2006 6:44:28 PM	Aug 9, 2006 6:44:28 PM

__ 8. When the entire comment row is highlighted, click the **Add response** button.

The error message `You are not authorized to review this comment` appears. As a view-only user, you are allowed to view the content of the project, but not to add a response.

__ 9. To view attachment information, click the paper clip icon in the **Subject** column.

Subject	Status	Priority	Type	Author	Responses	Created	Modified
Add a task	Open	Medium	Problem	BI182PS1	0	Aug 4, 2006 7:15:31 PM	Aug 4, 2006 7:15:31 PM

__ 10. Scroll down to the bottom of the portlet, and click the link **`www.ibm.com/training`**. A new browser will open with IBM's training Web site.

__ 11. Click **Log out** to exit.

You may play the flashcard game after completing the lab exercise.

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Part 11: Review questions

Your instructor will review the following questions with you.

__ 1. What are the benefits of the WebSphere Business Publishing Server?

_____

__ 2. What are the four portals in the WebSphere Business Publishing Server?

_____

__ 3. What is the difference between a “draft” and “released” portal?

_____

__ 4. What are the five portlets to be found on the draft portals?

_____

__ 5. How can a user tell if there is a comment or an attachment for an element in the Project Tree?

_____

END OF EXERCISE

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Exercise 12.Importing from Visio

What this exercise is about

You can import models or definitions from several different formats into WebSphere Business Modeler. This lab will provide hands-on experience in importing a process model from Microsoft Visio and definitions from a delimited text file and an XML Schema Definition file.

What you should be able to do

At the end of the lab, you should be able to:

- Import a model from Microsoft Visio
- Map unrecognized Visio objects to Modeler objects
- Update a model in Modeler to fix inconsistencies in the conversion of the Visio model
- Import from a delimited text file
- Update the model to fix inconsistencies in the import of the business items
- Import from an XML Schema Definition

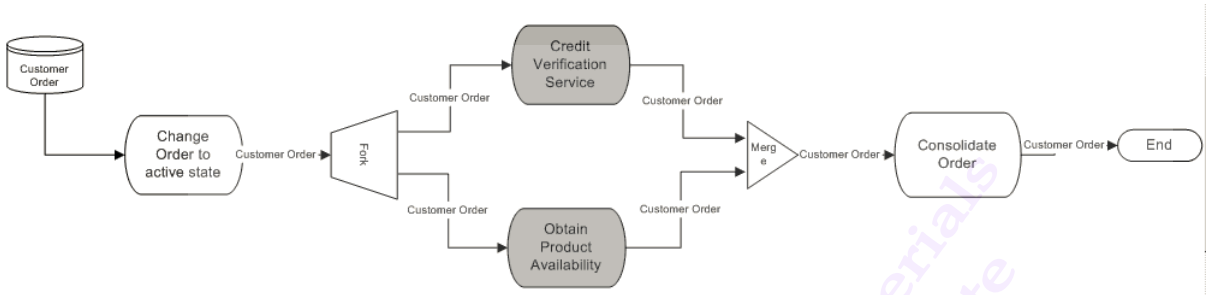
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Exercise instructions

Part 1: Importing from Visio

This part of the exercise walks you through the import of the following process model from Microsoft Visio into WebSphere Business Modeler:



Note

If Microsoft Office Visio or Microsoft Visio Viewer is installed on your system, you can view the Visio diagram by browsing to the appropriate location (**C:\Program Files\IBM\WebSphere\Modeler6\samples\import\Visio Sample1**) and opening the document **ABC Project.vdx**.

__ 1. To launch the Modeler, click **Start —> Programs —> IBM WebSphere —> Business Modeler**.

__ 2. Enter `C:\ClassWorkspaces\Lab12` as the workspace.

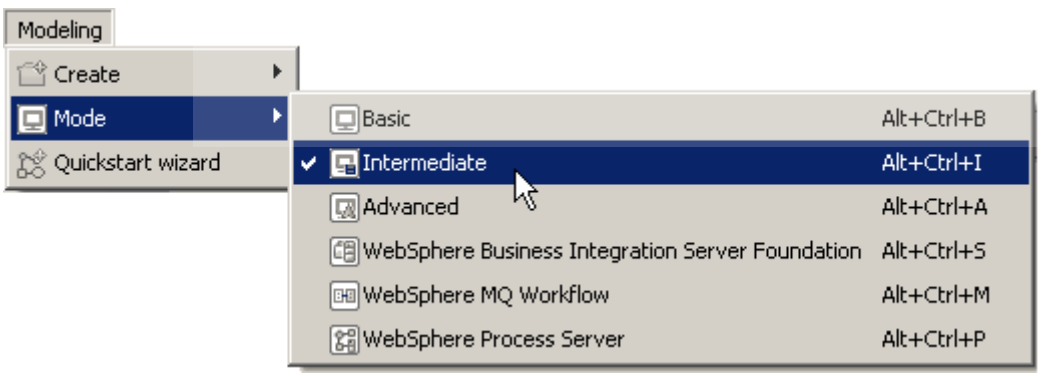
__ 3. Click **OK**.

__ 4. If the **Quickstart** wizard is displayed, click **Cancel**.

Part 2: Importing a model from Modeler

__ 1. Check that the modeling mode is **Intermediate**.

To change, use the Ctrl+Alt+I keyboard shortcut or select the **Modeling** menu on the toolbar, select **Mode**, and click **Intermediate**.

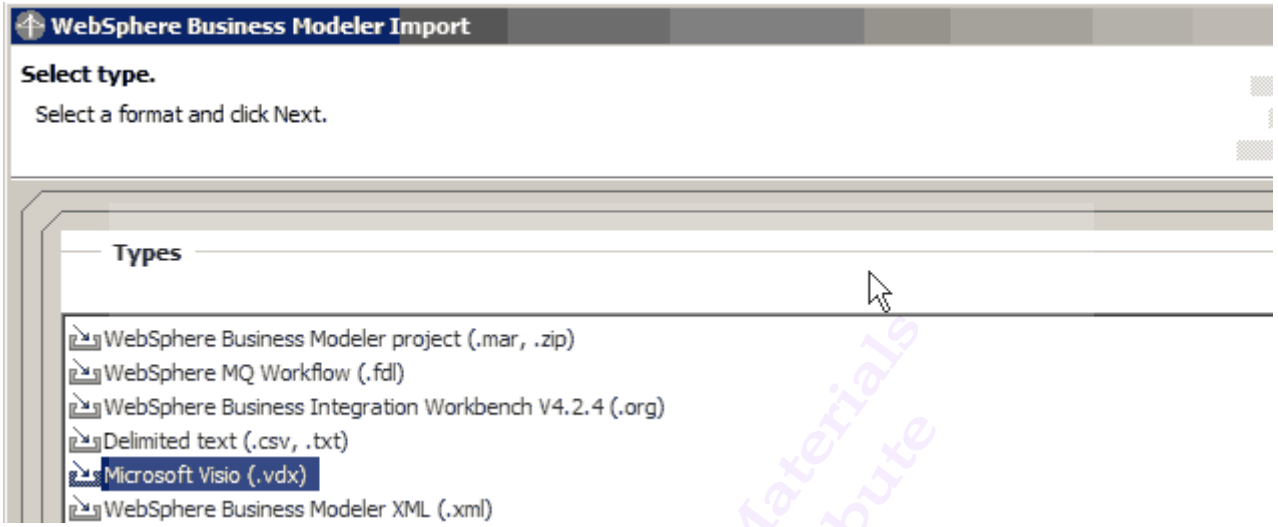


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__ 2. Right-click anywhere in the Project Tree and select **Import**.

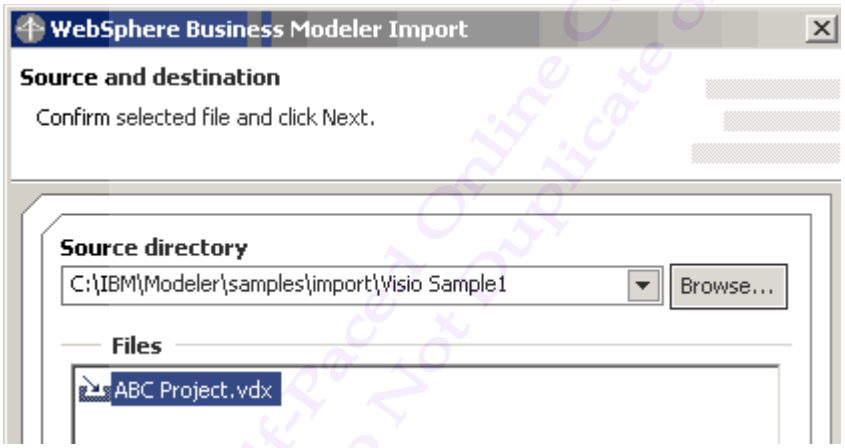
The Import wizard appears.


WebSphere Business Modeler Import
Select type.
Select a format and click Next.
Types
WebSphere Business Modeler project (.mar, .zip)
WebSphere MQ Workflow (.fdl)
WebSphere Business Integration Workbench V4.2.4 (.org)
Delimited text (.csv, .txt)
Microsoft Visio (.vdx)
WebSphere Business Modeler XML (.xml)

__ 3. Select **Microsoft Visio (.vdx)** and click **Next**.

__ 4. Click the **Browse** button and navigate to the following directory and click **OK**:
C:\Program Files\IBM\WebSphere\Modeler6\samples\import\VisioSample1

__ 5. Under **Files**, select **ABC Project.vdx**.

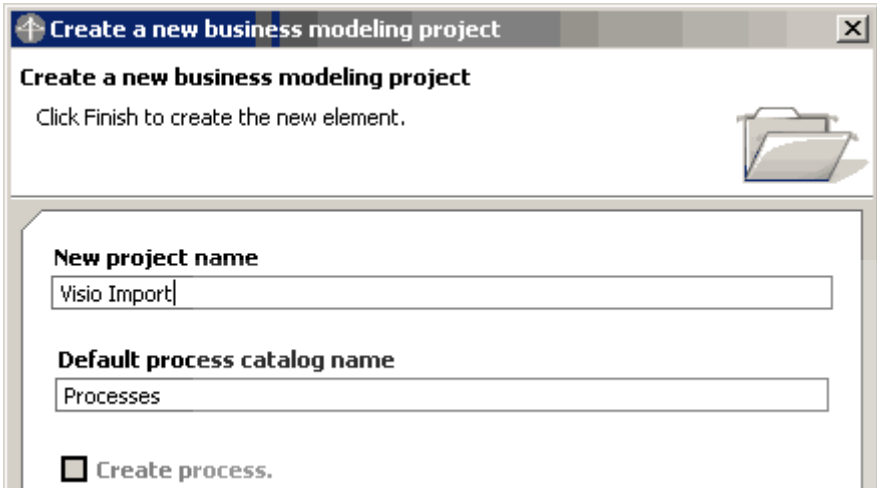


__ 6. Under **Target project**, click the **New** button to create a new project.

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__ 7. Under **New project name**, enter `Visio Import`.

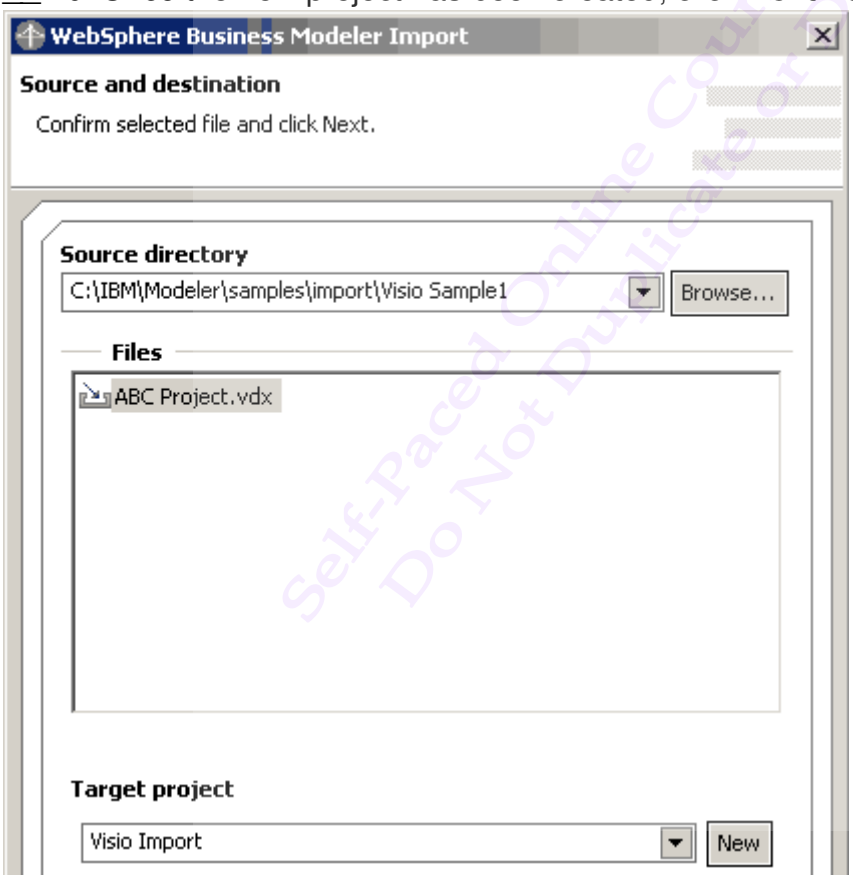


__ 8. Verify that the **Create process** check box is cleared.

__ 9. Click **Finish**.

It will take a few moments for the project files to be created.

__ 10. Once the new project has been created, click **Next** from the **Import** window.

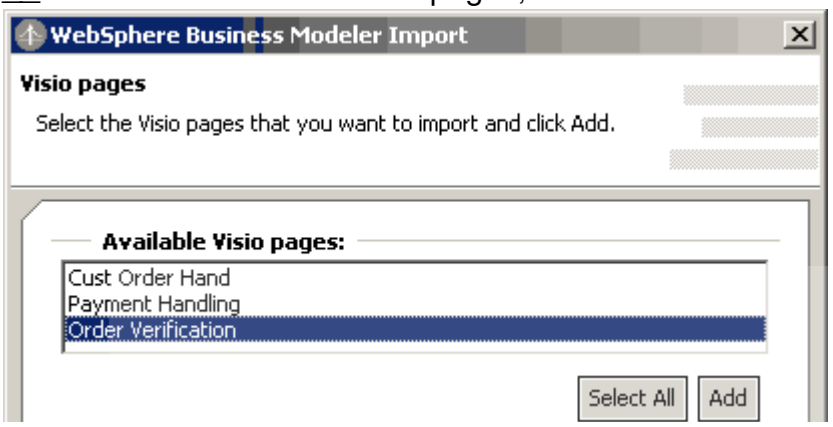


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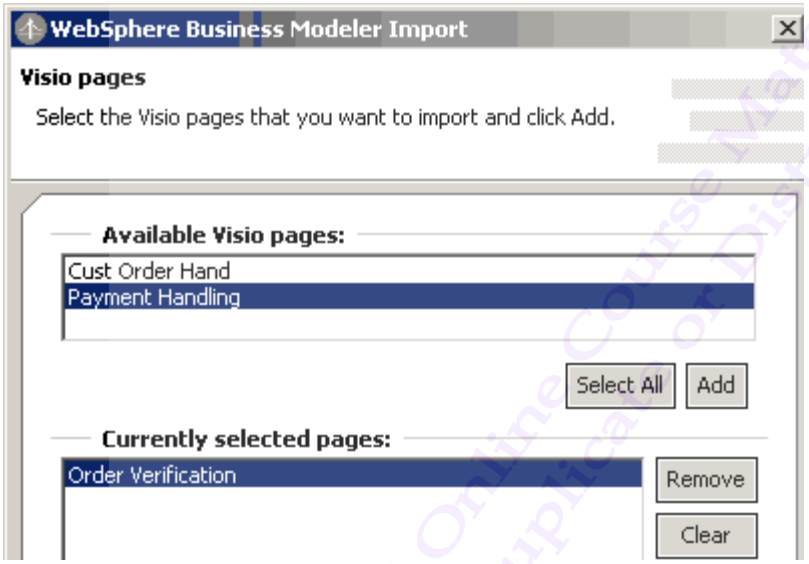
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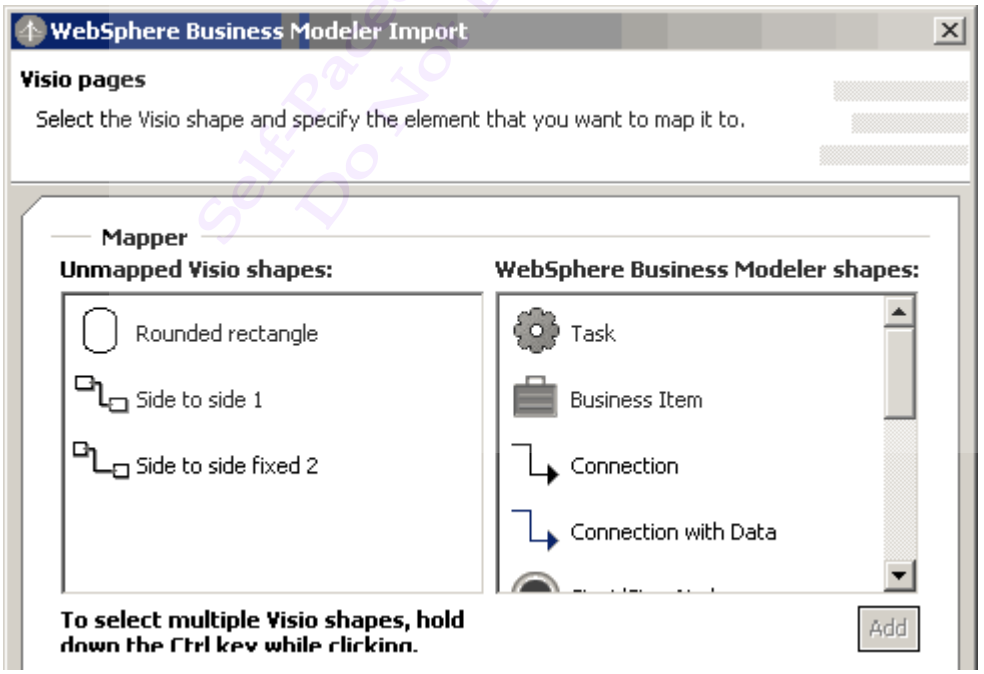
__ 11. Under **Available Visio** pages, select **Order Verification** and click **Add**.



__ 12. Order Verification now appears under **Currently selected pages**.



__ 13. Click **Next**.



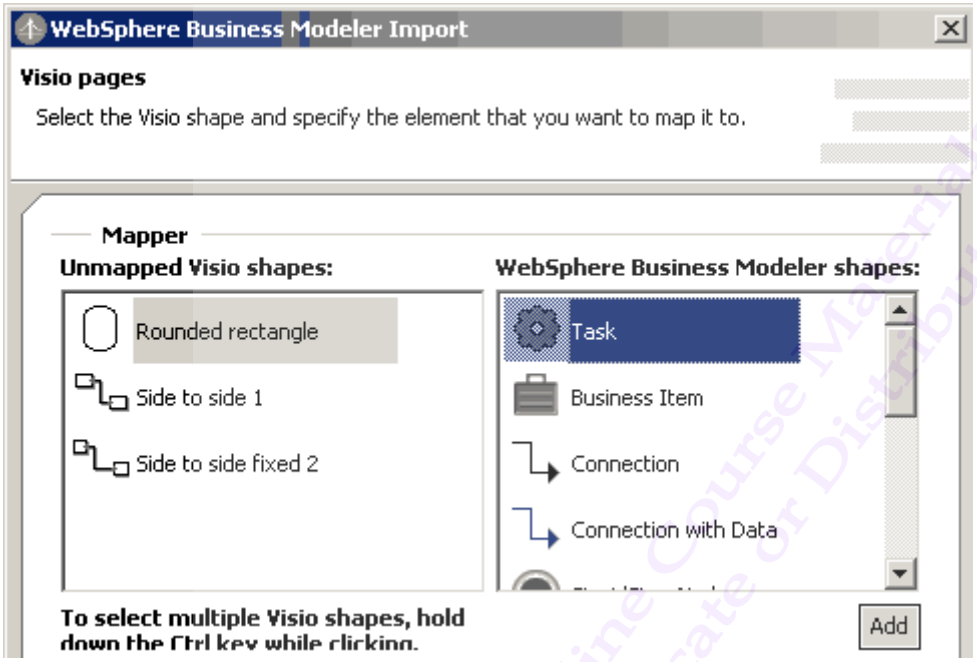
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Imported Visio shapes that are not yet mapped are shown in the upper **Unmapped Visio shapes** list. You can select each of them in turn (or select several by holding down the Ctrl key) and select the Modeler element to which to map them.

__ 14. Under **Unmapped Visio shapes**, select **Rounded rectangle** from the list.

__ 15. Map this Visio object to the task object in Modeler by selecting **Task** in the list under **WebSphere Business Modeler shapes** and clicking **Add**.


WebSphere Business Modeler Import
Visio pages
Select the Visio shape and specify the element that you want to map it to.
Mapper
Unmapped Visio shapes:
WebSphere Business Modeler shapes:
Rounded rectangle
Side to side 1
Side to side fixed 2
Task
Business Item
Connection
Connection with Data
To select multiple Visio shapes, hold down the Ctrl key while clicking.
Add

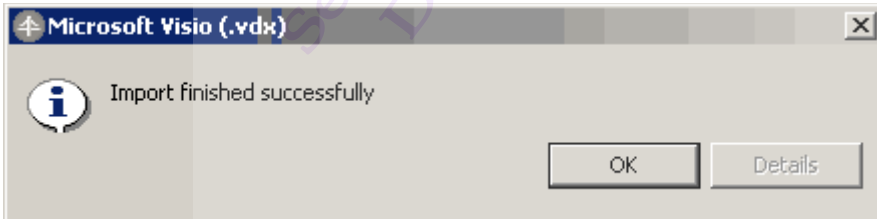
__ 16. Map **Side to side 1** to **Connection with Data** and click **Add**.

__ 17. Map **Side to side fixed 2** to **Connection with Data** and click **Add**.

There should be no other unmapped Visio shapes listed.

Note: By default, any shape left unmapped is mapped to a task.

__ 18. Click **Finish**. Upon completion, the message **Import finished successfully** is displayed.



__ 19. Click **OK** to close the message.

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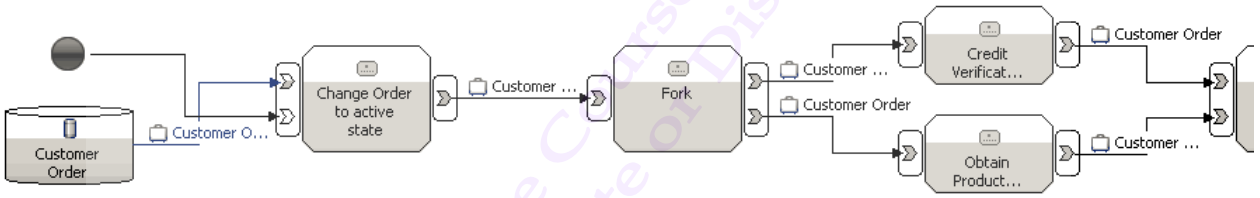
Note: If you receive an error or warning message instead, click the **Details** button to identify and resolve the problem.



__ 20. To view the imported process, navigate to the **Visio Import** project in the Project Tree and double-click the **Order Verification** process.



The process opens in the process editor.

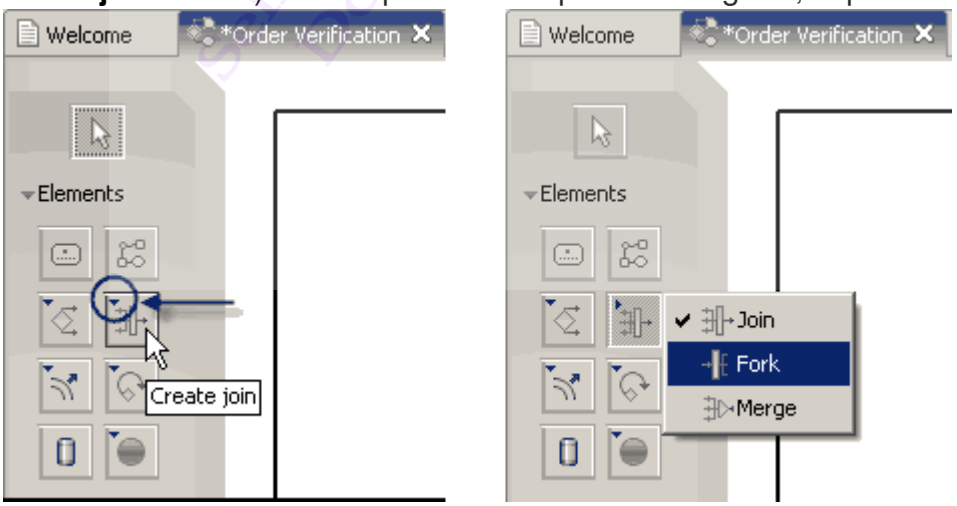


Part 3: Remapping the fork object

Convert the **Fork** task to the **Fork** object in Modeler:

__ 1. Delete the task labeled **Fork** by selecting the task and pressing the Delete key on the keyboard.

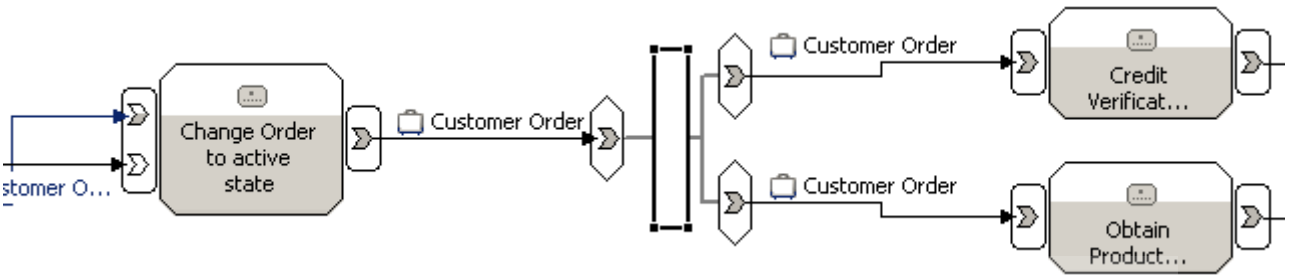
__ 2. Select the **Fork** element from diagram palette (click the small arrow in the **Create join** button) and drop it onto the process diagram, in place of the deleted **Fork** task.



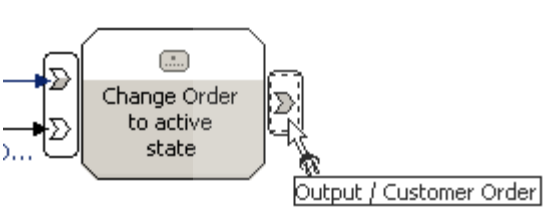
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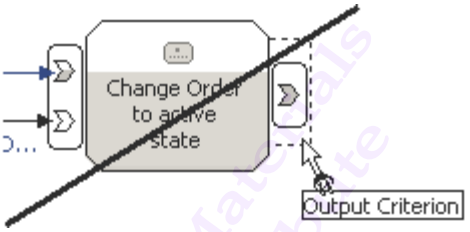
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__ 3. Connect the **Fork** to the surrounding elements as follows:



When connecting each element, select the input-output icon, and not the criterion box.



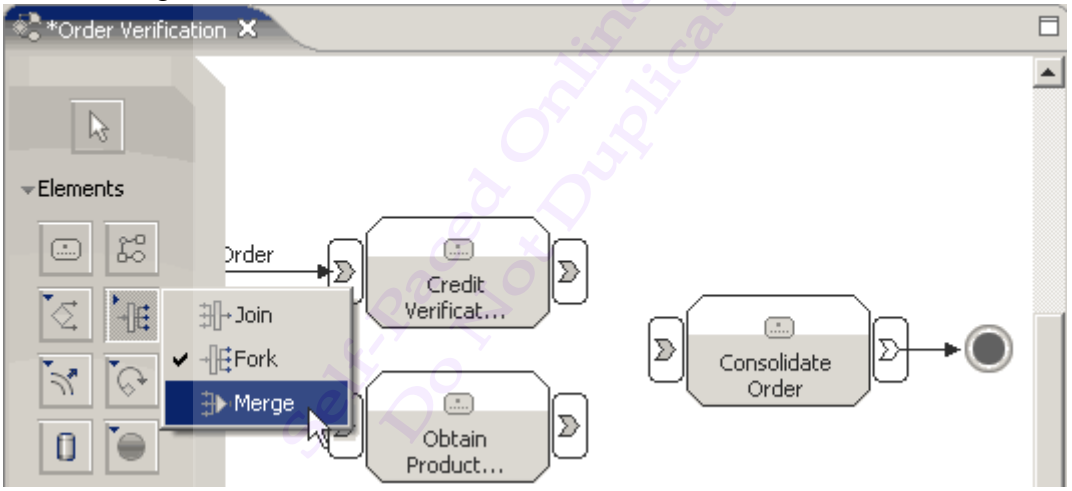


Part 4: Remapping the merge object

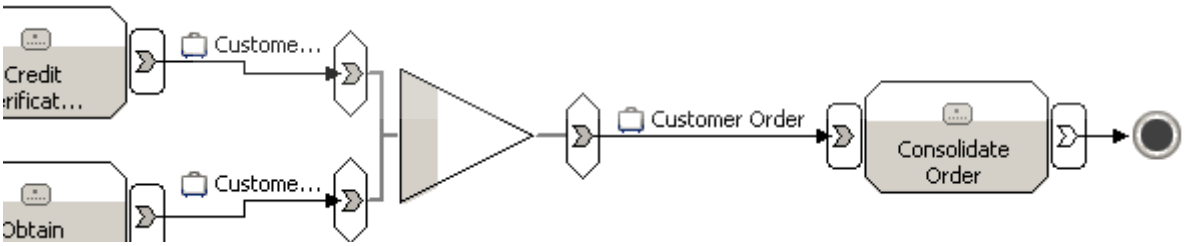
Convert the merge task to the merge object in Modeler:

__ 1. Delete the task labeled Merge.

__ 2. Select the merge object and drop it onto the process diagram, in place of the deleted merge task.



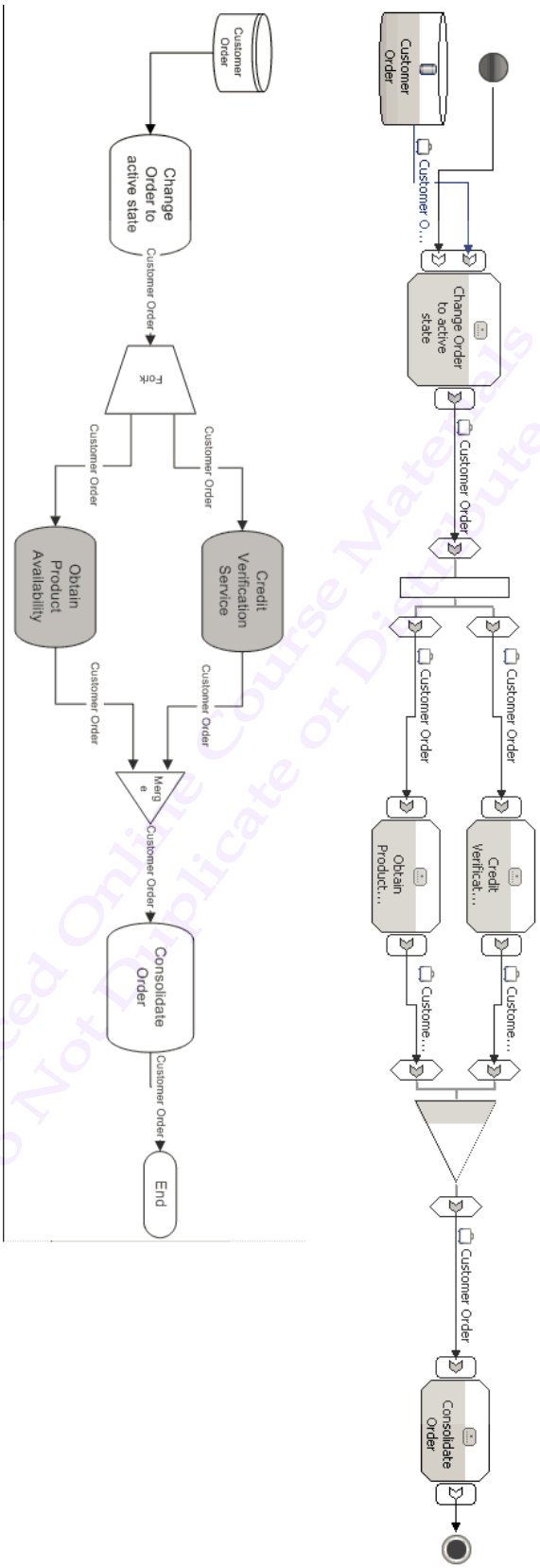
__ 3. Connect the merge to the surrounding elements as follows:



__ 4. Save the model (Ctrl+S).

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The full model should now look as follows (compare this to the Visio model):



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Part 5: Importing delimited text file

You can import specially formatted delimited text files into WebSphere Business Modeler.

Only the following elements can be created by importing from delimited text files:

- Business item templates, business items
- Resource definition templates, resource definitions, resources, roles
- Organization definition templates, organization definitions, organization units
- Reusable tasks (tasks that appear in the Project Tree)

In this part of the exercise, you will be importing the **BusinessItemSample.csv** and **BusinessItemTemplateSample.csv** files.

To view these files:

__ 1. Browse to **C:\Program Files\IBM\WebSphere\Modeler6\samples\import\Delimited Text\English\Text Forms\Advanced\Samples** and **double-click** the **BusinessItemSample.csv** or **BusinessItemTemplateSample.csv** file.

These files can also be opened with Notepad (right-click the file, select **Open With...** and choose Notepad).

In this part of the lab, you will be importing the following data from sample folder:

Business Item Name	Description	Parent Template	Attribute Name	Attribute Description	Attribute T	Attribute Minimum	Attribute Maximum	Attribute Read Only	Attribute Static	Attribute Ordered	Attribute Unique
Customer Order		Order	Customer Address		Address	1	1	FALSE	FALSE	FALSE	FALSE
			Pay by Credit Card		Boolean	1	1	FALSE	FALSE	FALSE	FALSE
			Pay by Cash or Check		Boolean	1	1	FALSE	FALSE	FALSE	FALSE
			Credit Status		String	1	1	FALSE	FALSE	FALSE	FALSE
			Order Item		ABC Prod	1	5	FALSE	FALSE	FALSE	FALSE
			Available Order Item		Boolean	1	5	FALSE	FALSE	FALSE	FALSE
Address			Address Line 1		String	1	1	FALSE	FALSE	FALSE	FALSE
			Address Line 2		String	1	1	FALSE	FALSE	FALSE	FALSE
			City		String	1	1	FALSE	FALSE	FALSE	FALSE
			Province		String	1	1	FALSE	FALSE	FALSE	FALSE
			Country		String	1	1	FALSE	FALSE	FALSE	FALSE
			Postal Code		String	1	1	FALSE	FALSE	FALSE	FALSE
ABC Product		Product									
Order Request		Order	Customer Number		String	0	1	FALSE	FALSE	FALSE	FALSE
			Requester Address		Address	0	1	FALSE	FALSE	FALSE	FALSE
			Order Items		ABC Prod	1	5	FALSE	FALSE	FALSE	FALSE
Customer Record		Record									

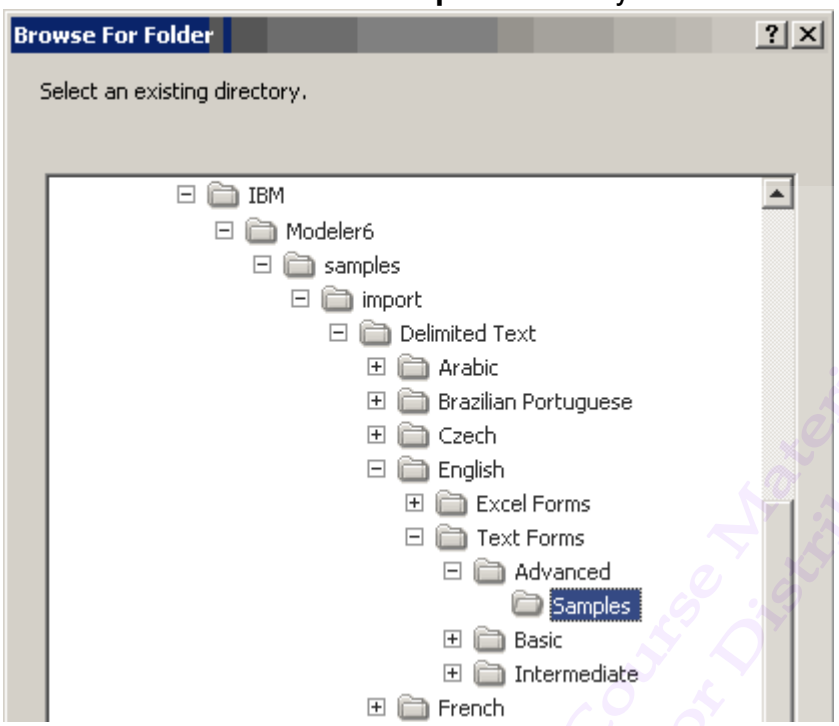
__ 2. In the Project Tree, right-click the **Visio Import** project and select **Import**. The Import wizard appears.

__ 3. Select **Delimited Text (.csv, .txt)** and click **Next**.

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__ 4. Click the Browse button and navigate to the **C:\Program Files\IBM\Modeler6\samples\import\Delimited Text\English\Text Forms\Advanced\Samples** directory.



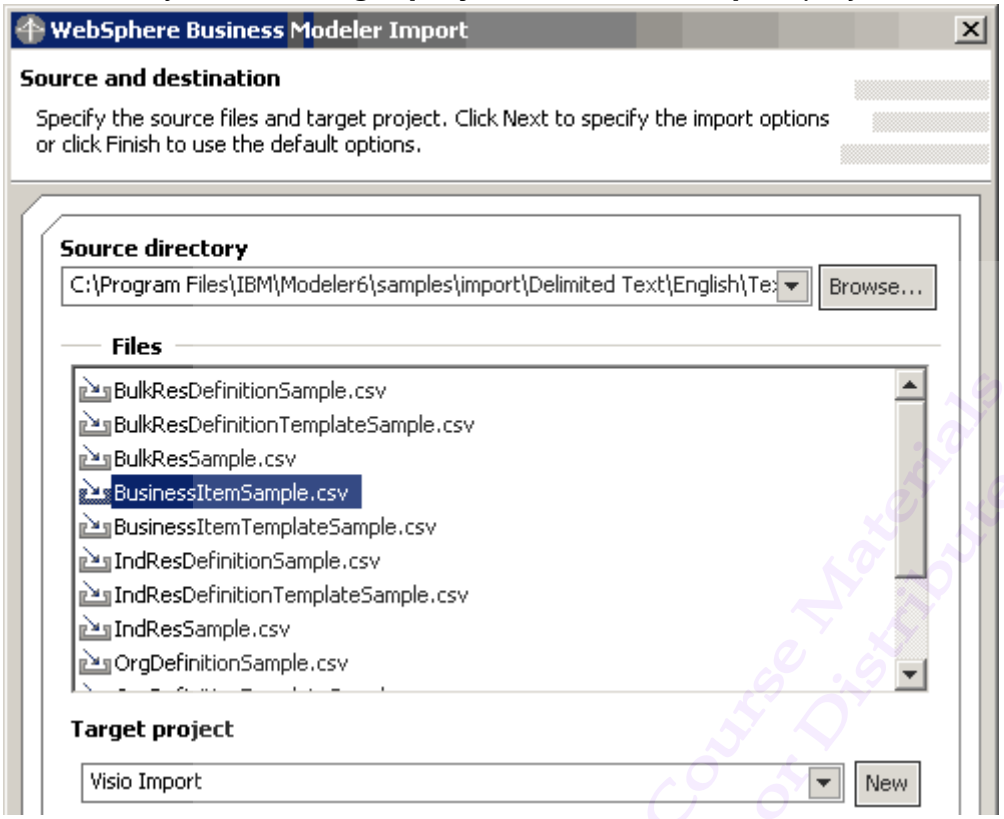
__ 5. Click **OK**.

__ 6. Under **Files**, select **BusinessItemSample.csv**.

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__ 7. Verify that the **Target project** is the **Visio Import** project and click **Next**.

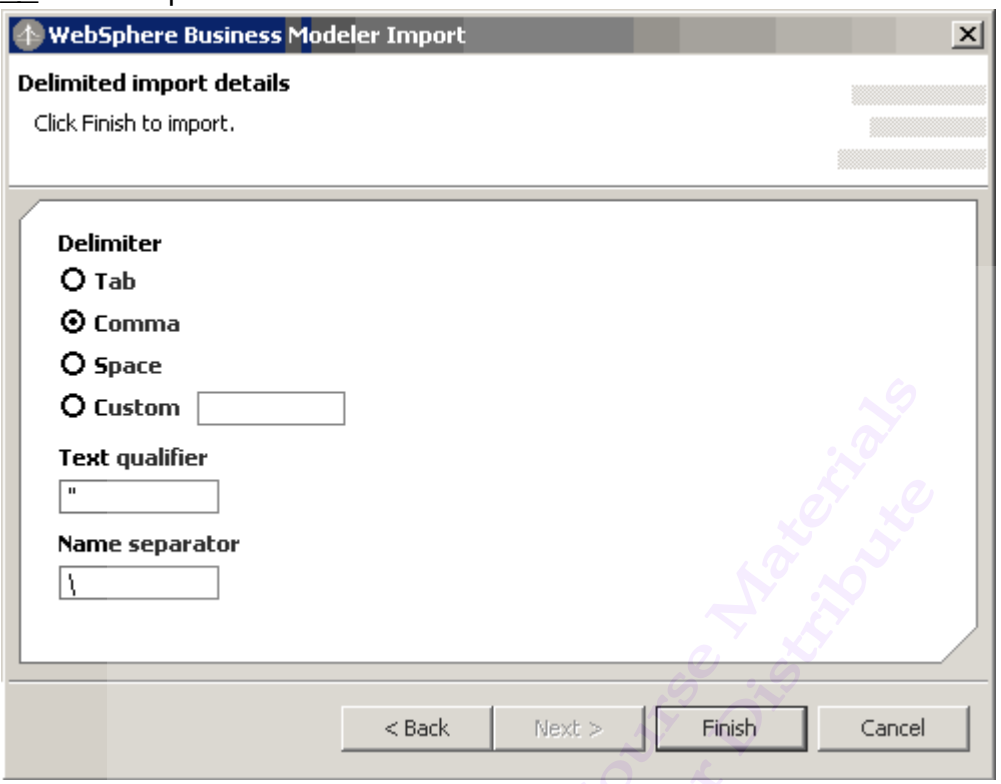


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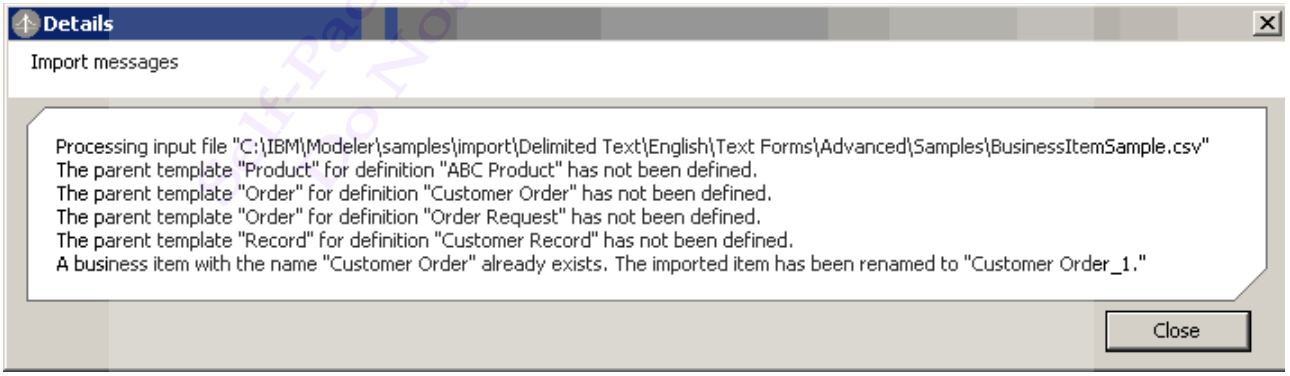
__ 8. Accept the default values and click **Finish**.



A dialog box is displayed when the import process is complete.



__ 9. Click **Details** and review the messages.


Details
Import messages
Processing input file "C:\IBM\Modeler\samples\import\Delimited Text\English\Text Forms\Advanced\Samples\BusinessItemSample.csv"
The parent template "Product" for definition "ABC Product" has not been defined.
The parent template "Order" for definition "Customer Order" has not been defined.
The parent template "Order" for definition "Order Request" has not been defined.
The parent template "Record" for definition "Customer Record" has not been defined.
A business item with the name "Customer Order" already exists. The imported item has been renamed to "Customer Order_1."
Close

The warnings will be resolved once you import the parent templates and assign the business items to the templates.

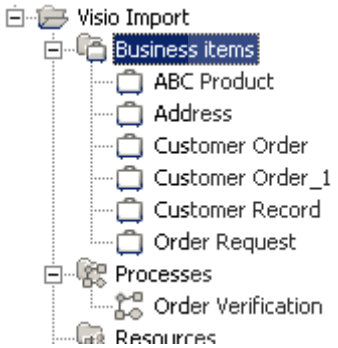
__ 10. Click **Close** and **OK**.

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__ 11. From the **Visio Import** project in the Project Tree, expand the **Business items** catalog.
Note that the following business items have been added:

- **ABC Product**
- **Address**
- **Customer Order_1 (renamed because Customer Order is already present)**
- **Customer Record**
- **Order Request**



Part 6: Import business item template sample

In this part of the exercise, you will be importing the following data:

Business Item Template Name	Description	Parent Template	Attribute Name	Attribute Description	Attribute Type	Attribute Minimum	Attribute Maximum	Attribute F
Order	Defines the base attribute of an Order		Last Name		String	1	1	TRUE
			First Name		String	1	1	TRUE
			Order Number	Order Number is unique to each Order.	Integer	1	1	FALSE
			Order Date		Date	1	1	FALSE
			Delivery Date		Date	1	1	FALSE
Product			Product Name		String	1	1	FALSE
			Product Code		String	1	1	FALSE
Record			Last Name		String	1	1	FALSE
			First name		String	1	1	FALSE
			Customer Number		Integer	1	1	FALSE

__ 1. In the Project Tree, right-click the **Visio Import** project and select **Import**. The Import wizard appears.

__ 2. Select **Delimited Text (.csv, .txt)** and click Next.

__ 3. Click the drop-down menu under **Source directory** and from the drop-down menu, select the following directory:
C:\Program Files\IBM\WebSphere\Modeler6\samples\import\Delimited Text\English\Text Forms\Advanced\Samples

__ 4. Under **Files**, select **BusinessItemTemplateSample.csv**.

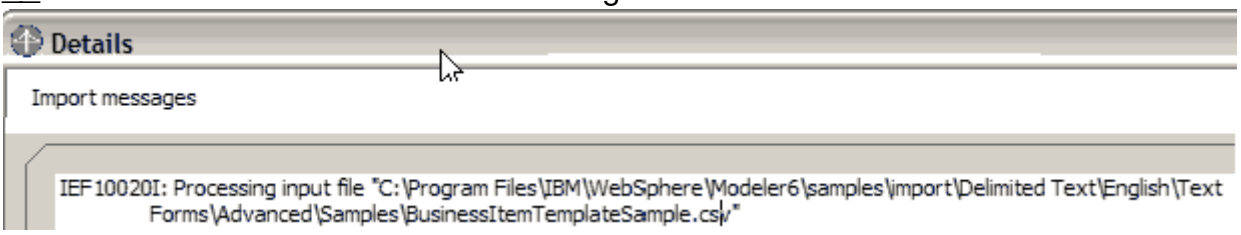
__ 5. Verify that the **Target project** is the **Visio Import** project and click **Finish**.

A dialog box is displayed when the import process is complete.

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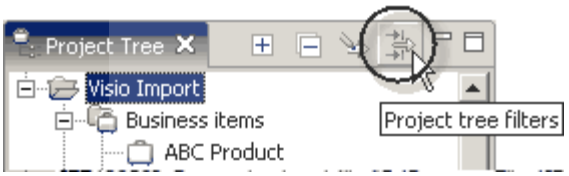
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__ 6. Click **Details** and review the message.

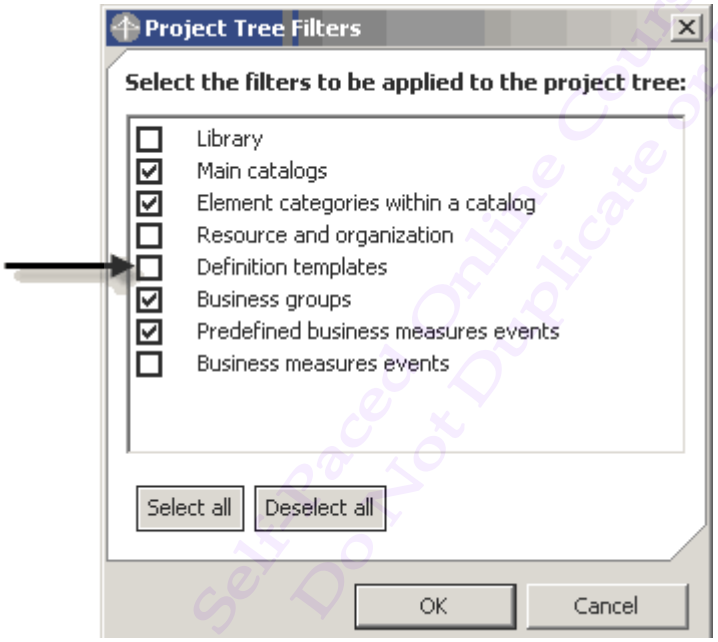


__ 7. Click **Close** and **OK**.

__ 8. By default, templates are not displayed in the Project Tree. To make templates visible, click the **Project tree filters** button on the toolbar at the top of the Project Tree.



__ 9. In the Project Tree Filters window, clear the **Definition templates** check box and click **OK**.



This enables definition templates to be displayed in the Project Tree.

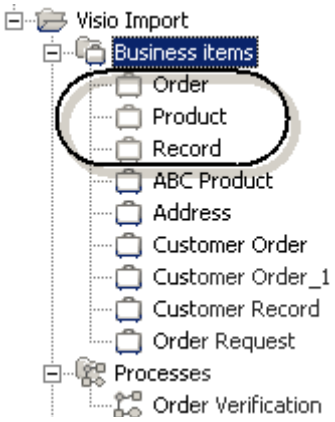
__ 10. From the **Visio Import** project in the Project Tree, note the additions to the **Business items** catalog.

The following business item templates have been added:

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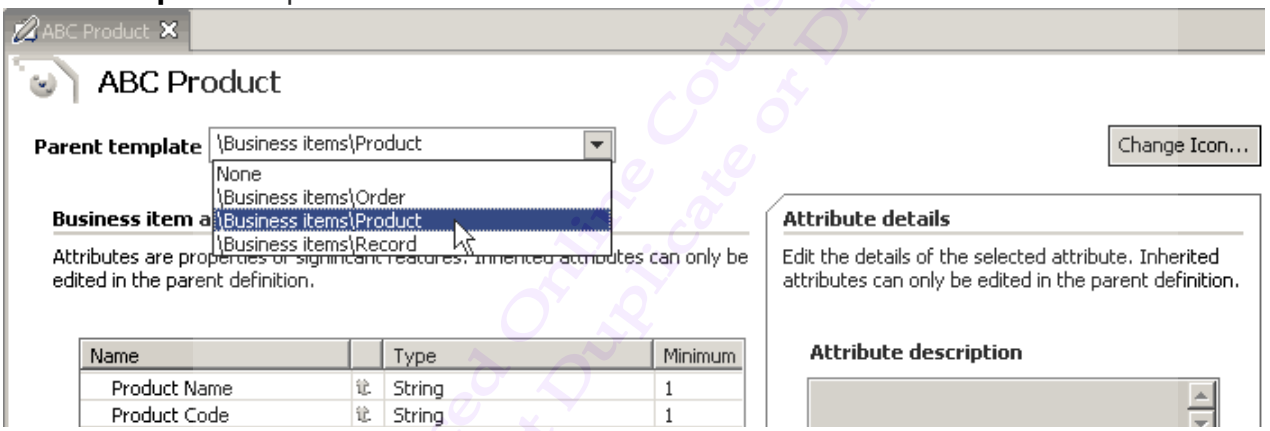
Order, **Product**, and **Record**.



Part 7: Resolve inconsistencies from import

__ 1. In the Project Tree, double-click **ABC Product** in the **Visio Import** project to open the business item.

__ 2. In the business item editor, select **Business items****Product** from the **Parent template** drop-down menu.



__ 3. Save (Ctrl+S) and close the **ABC Product** editor.

__ 4. Assign parent templates to the remaining business items as follows:

- Address — (no parent template needed)
- Customer Order — (no parent template needed)
- Customer Order_1 — `Order`
- Customer Record — `Record`
- Order Request — `Order`

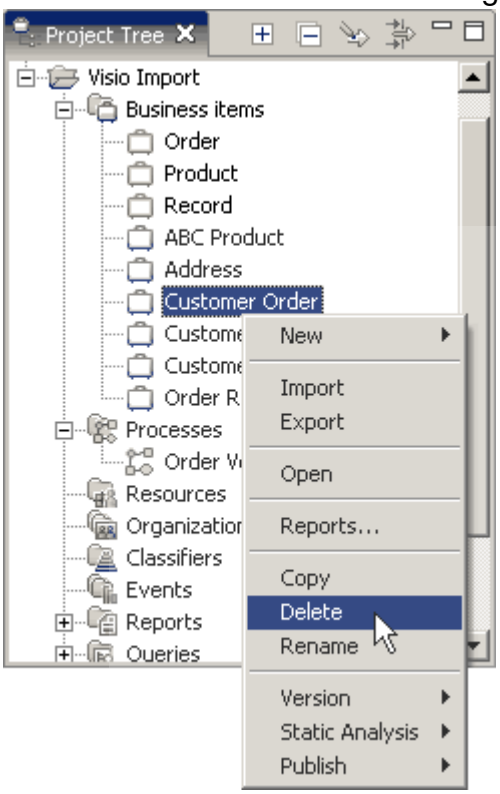
These values originate from the **BusinessItemSample.csv** file (shown on first page of the **Import Delimited Text File** section of this exercise).

__ 5. Save (Ctrl+S) and close all business item editors.

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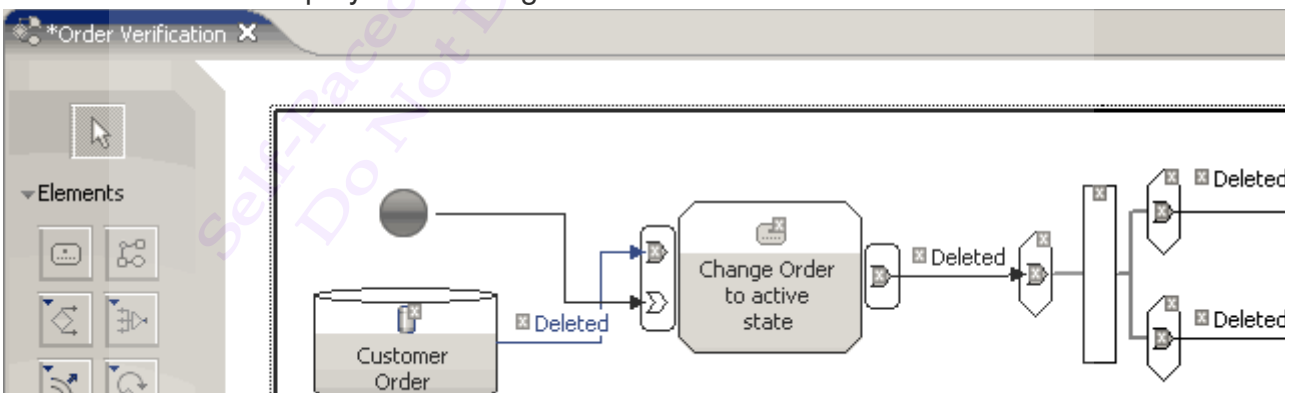
__ 6. From the **Visio Import** project in the Project Tree, right-click **Customer Order** from the **Business items** catalog and click **Delete**.



Alternatively, select Customer Order and press the Delete key on your keyboard.

__ 7. Click **Yes** to confirm the deletion.

Note that once the original **Customer Order** business item was deleted, all elements in the **Order Verification** process diagram have errors (red **X**s) and the connectors display the message **Deleted**.



__ 8. Right-click **Customer Order_1** and click **Rename**.

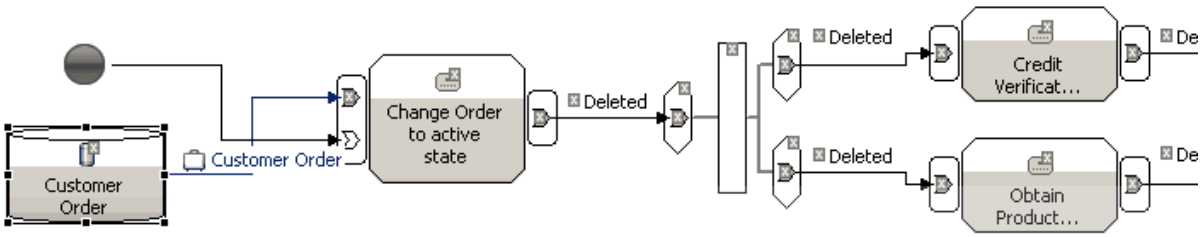
__ 9. Rename this item to `Customer Order` and press Enter.

__ 10. Drag the **Customer Order** business item from the Project Tree and drop it on the **Customer Order** repository object in the process editor.

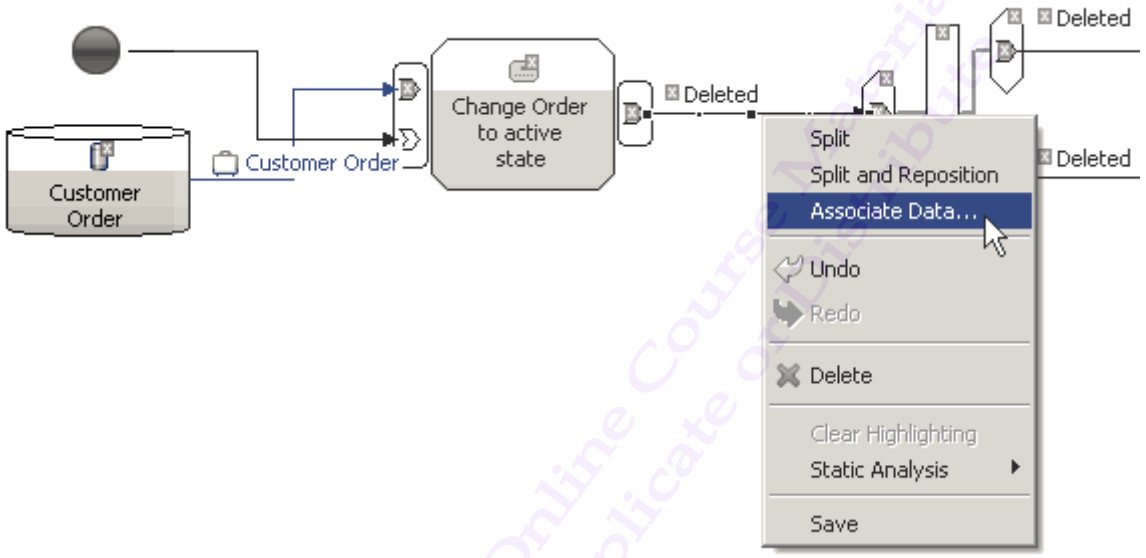
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The blue connector between the repository and the **Change Order to active state** task now has **Customer Order** as the associated data.



__ 11. Right-click the connector between the **Change Order to active state** task and the **Fork** element, and select **Associate data**.



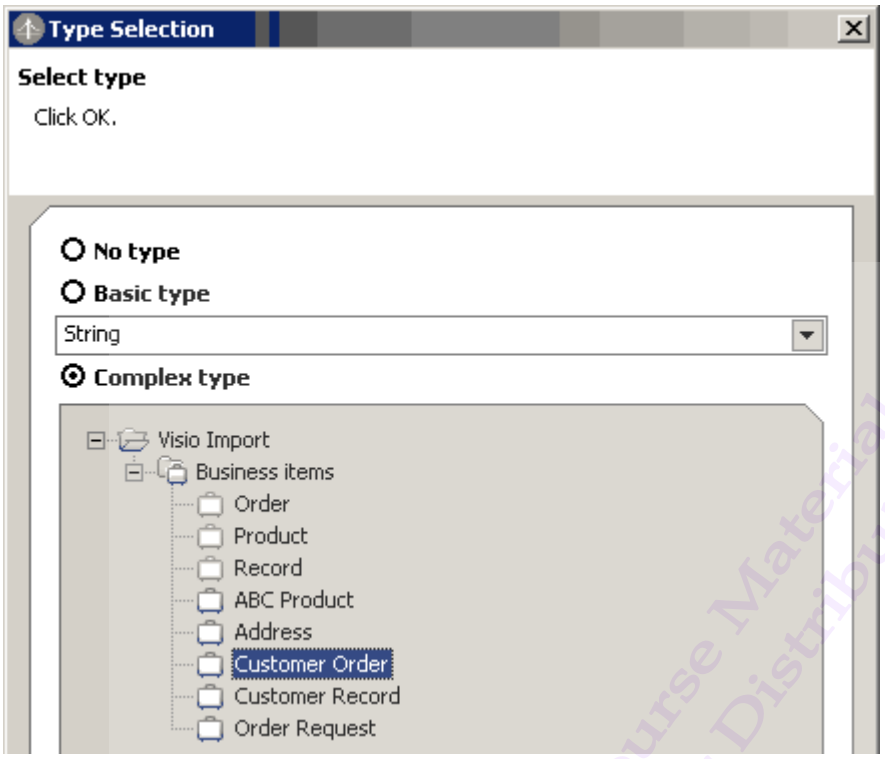
The **Type Selection** window is displayed.

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__ 12. Select **Customer Order** from the Business items catalog and click **OK**.



__ 13. Note that the outputs of the **Fork** object are automatically associated with **Customer Order**.

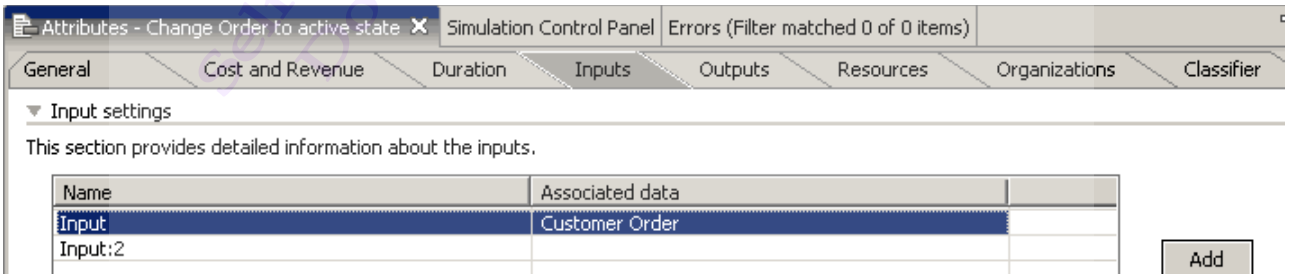
__ 14. Associate the remaining connectors to the `Customer Order` business item, except the ones connecting to the start and stop nodes:

Credit Verification Service —> Merge object

Obtain Product Availability —> Merge object

__ 15. Click the **Change Order to active state** task.

__ 16. In the **Attributes view**, click the **Inputs** tab and associate the first input with **Customer Order**.



__ 17. Repeat the previous step to associate Customer Order to the input of the **Credit Verification**, **Obtain Product Availability**, and **Consolidate Order** tasks.

__ 18. Save changes (Ctrl+S).

All red **X**s, which denote errors, should now be cleared from the process diagram.

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__ 19. Click the **Errors** tab in the bottom pane.

With the changes and updates, all errors should be fixed. There should be no errors listed in the **Errors** view.

Part 8: Import from XML Schema Definition file

You can import data definitions from XML Schema Definition (XSD) files. These data definitions can be used to create elements such as business items and resource definitions in WebSphere Business Modeler.

The following elements can be created by importing data structures from XSD files:

- Business item templates, business items
- Notification templates, notifications
- Resource definition templates, resource definitions
- Organization definition templates, organization definitions

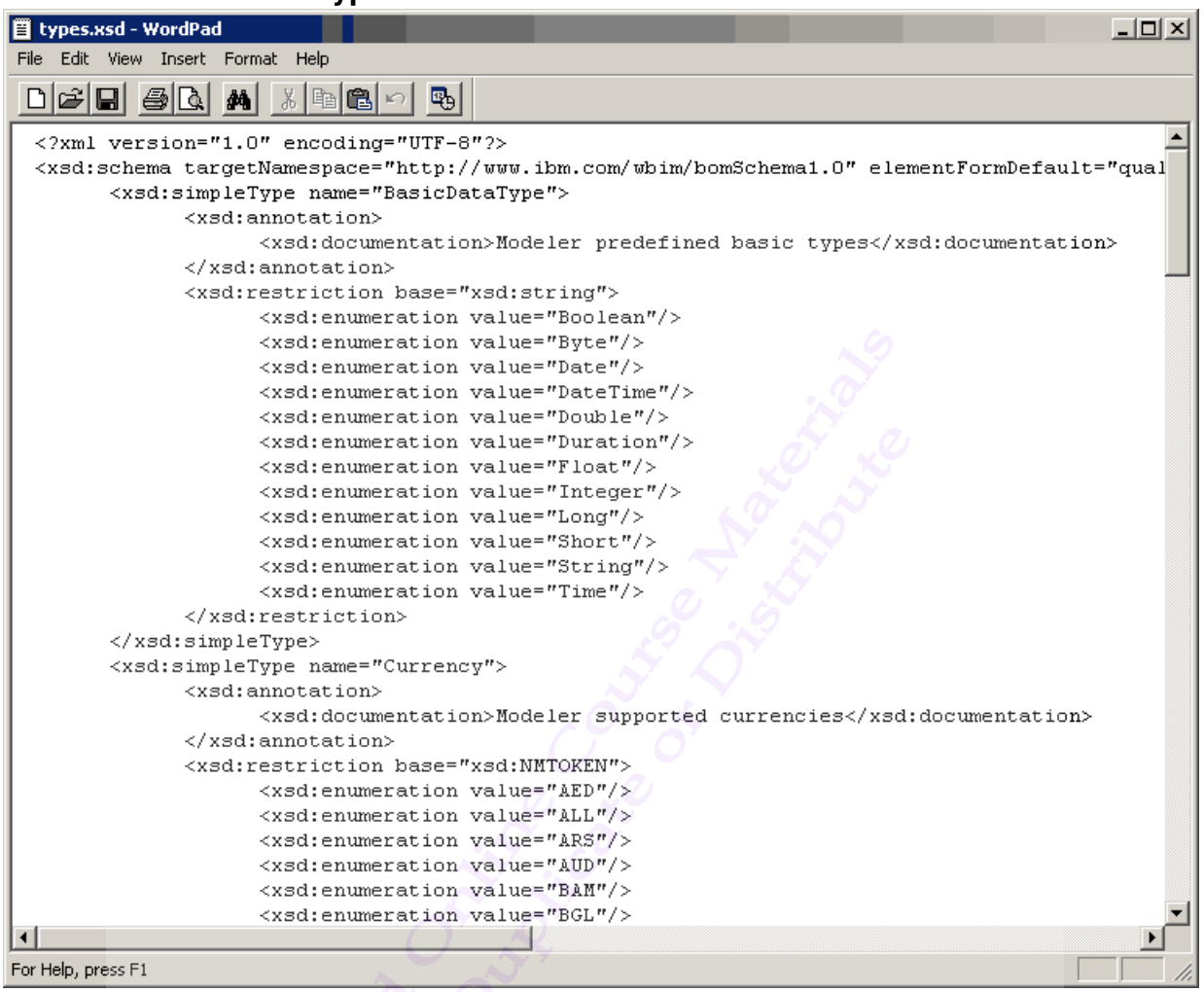
In this part of the exercise, you will be importing the **types.xsd** file. To view this file:

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__ 1. Browse to **C:\Program Files\IBM\WebSphere\Modeler6\samples\import\xml** and double-click the **types.xsd** file.



Part 9: Import sample .xsd file

__ 1. In the Project Tree, right-click **Visio Import** and select **Import**.

__ 2. Select **Business services and service objects (.wsdl, .xsd)** and click **Next**.

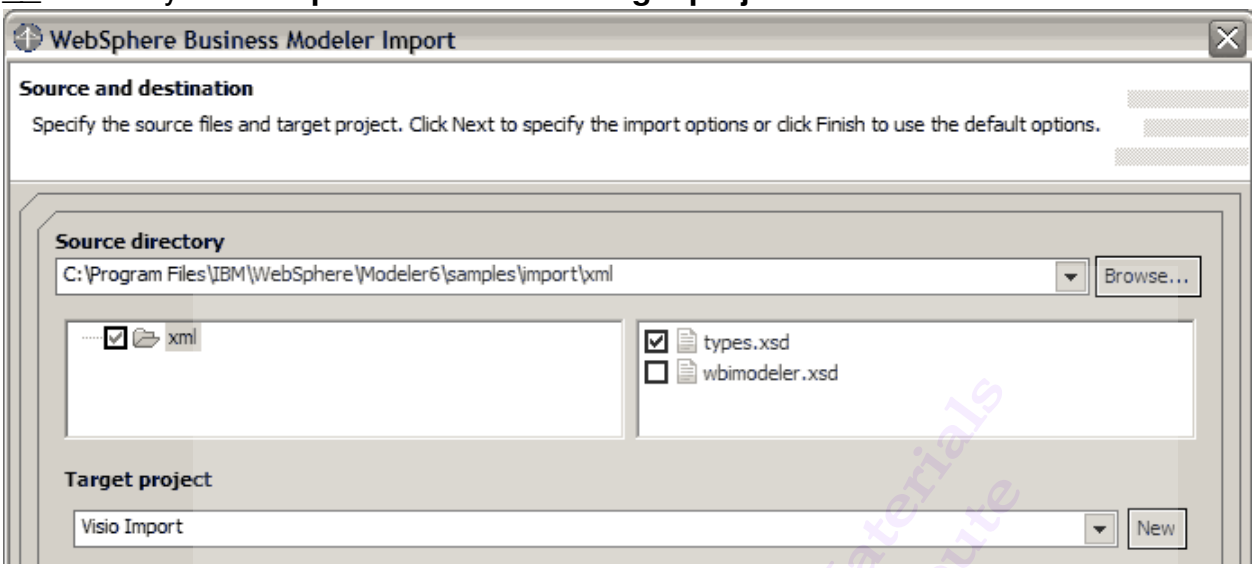
__ 3. Under **Source directory**, browse to the following directory and click **OK**: **C:\Program Files\IBM\WebSphere\Modeler6\samples\import\xml**

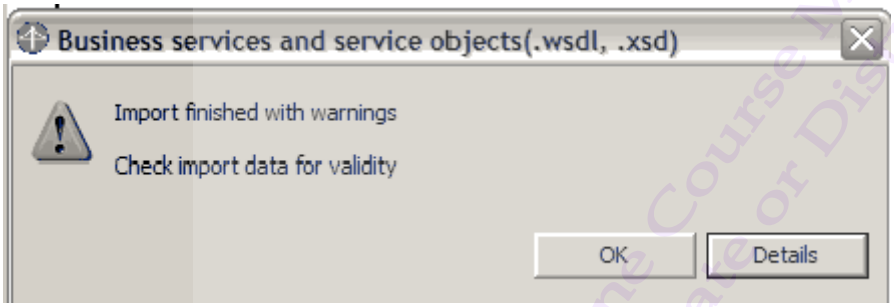
__ 4. Double-click **xml** and select **types.xsd**.

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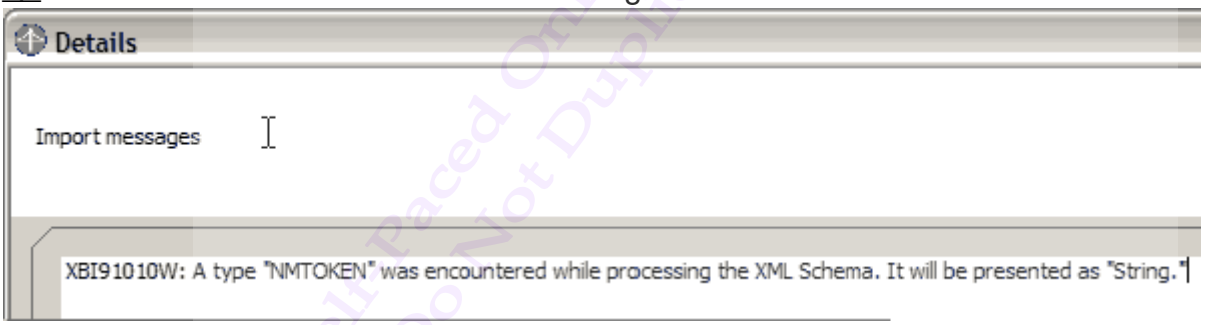
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__ 5. Verify **Visio Import** is selected as **Target project** and click **Finish**.





__ 6. Click **Details** to view the error messages.


Details
Import messages
XBI91010W: A type "NMTOKEN" was encountered while processing the XML Schema. It will be presented as "String."

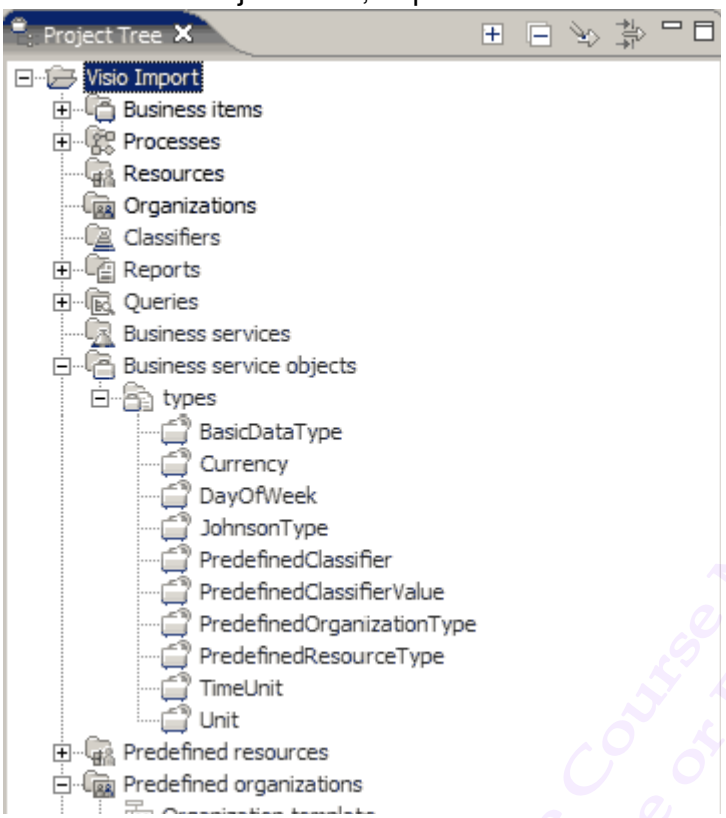
__ 7. Click **Close** and **OK**.

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__ 8. View the imported data:
In the Project Tree, expand **Business service objects —> types**



__ 9. Exit Modeler.

You may play the flashcard game after completion of the lab exercise.

Part 10: WebSphere games: Crossword puzzle

Introduction

This game will test your knowledge for all the materials that are covered in this course.

The crossword puzzle is designed to test your knowledge and familiarity with new concepts and terminology learned in this module. The puzzle is initially a blank grid of intersecting boxes representing words. It is your task to figure out the words that go in the boxes using the given hints and structure of the puzzle.

__ 1. Enable the Web browser (Internet Explorer 6) to run Java applets.

__ a. Go to **Tools —> Internet options...** in Internet Explorer.

__ b. Go to the **Advanced** tab.

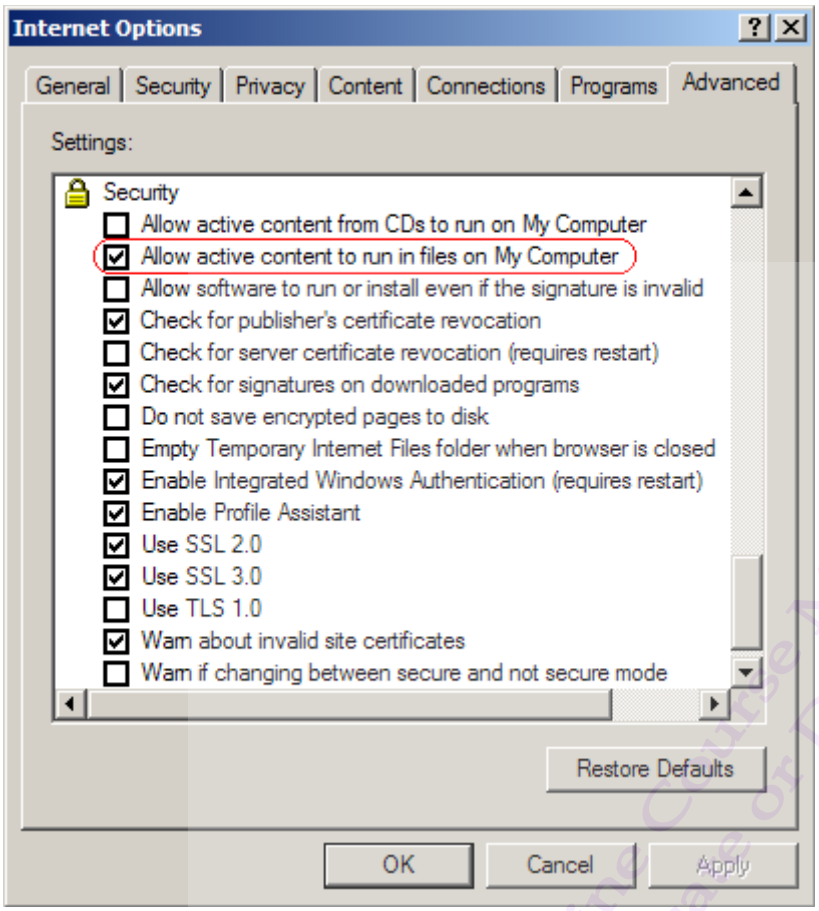
__ c. Scroll down to the **Security** section.

__ d. Enable **Allow active content to run in files on My Computer**.

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__ e. Press **OK**.



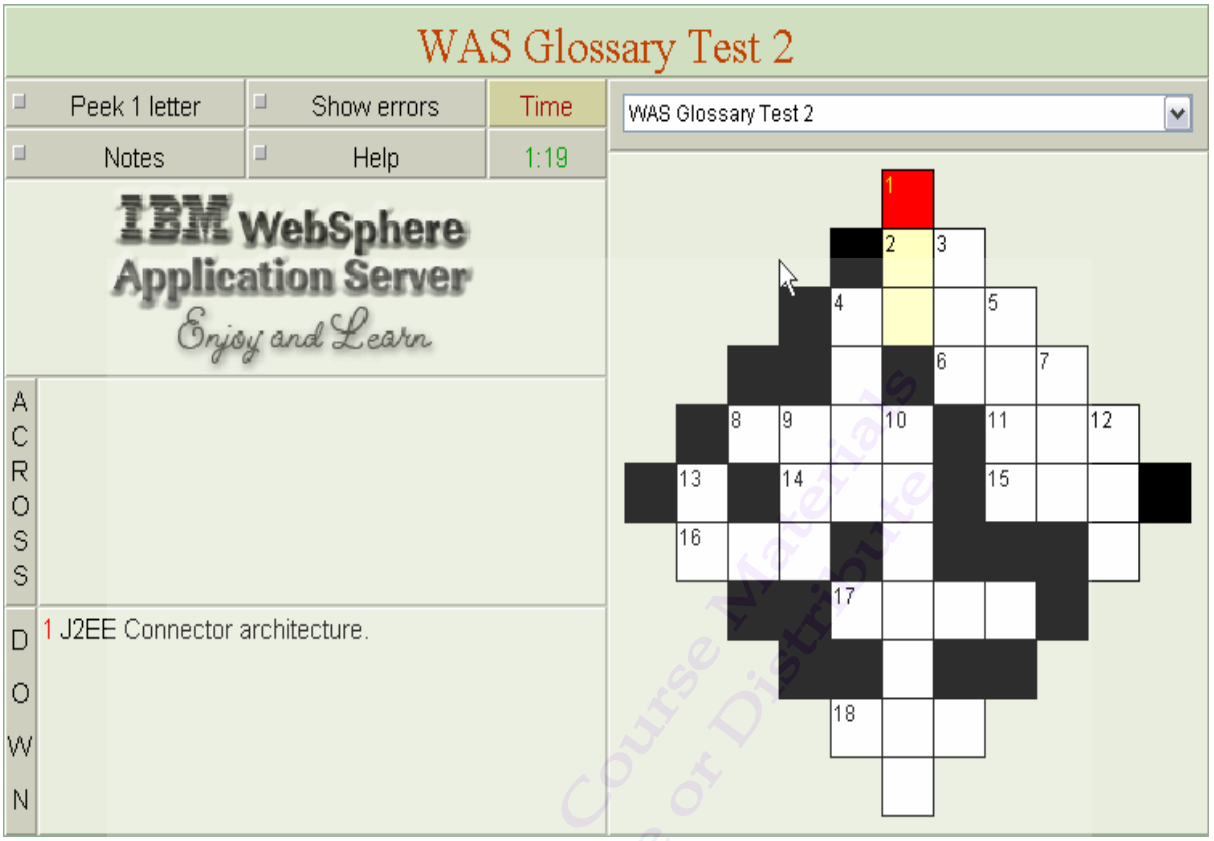
__ 2. Navigate to **C:\Student Files\Games\Crossword** and double-click **Crossword puzzle.html**.

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Your Web browser will open and launch the crossword Java applet.



__ 3. Click a number in the puzzle to reveal the clues in the left pane. The across clues are for the words running left to right. The down clues are for words running up and down.

__ 4. To enter text, simply type on the keyboard.

__ 5. If you need help, press **Peek 1 letter** to reveal the letter belonging to the highlighted box.

__ 6. To check an entry, press **Show errors**.

__ 7. Use the menu in the top right corner to switch puzzles if there are other puzzles for this module.

Part 11: Review questions

Your instructor will review the following questions with you.

__ 1. What are the restrictions when importing visio shapes to Modeler?

_____

__ 2. Which version of MS Visio does the Modeler support?

_____

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__ 3. What is the XML file format used for?

_____

__ 4. Name some of the delimited text attributes that are not supported by the Modeler import.

_____

END OF EXERCISE

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Exercise 13.Using Modeler Help

What this exercise is about

This lab will provide hands-on experience in using the information center (help) of Modeler.

What you should be able to do

At the end of the lab, you should be able to:

- Launch the Modeler Help
- Use the Modeler Help

Requirements

Previous labs should be completed successfully.

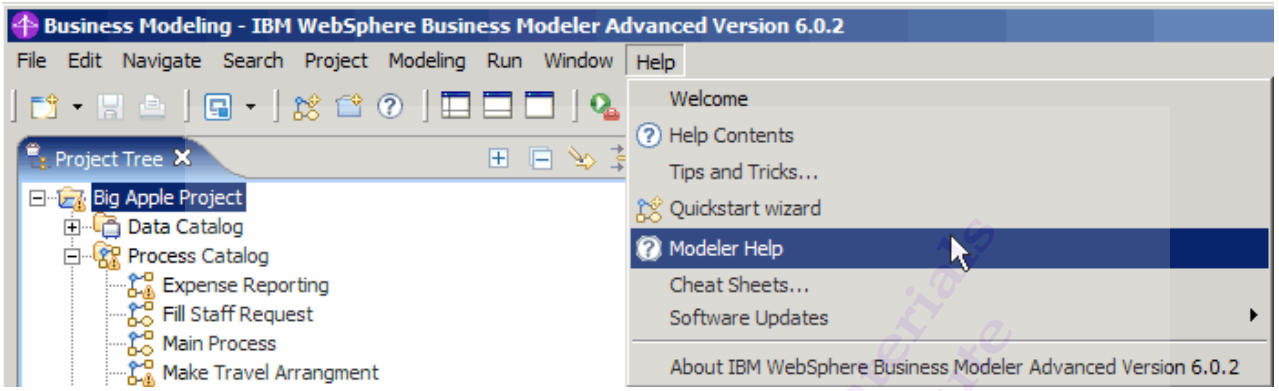
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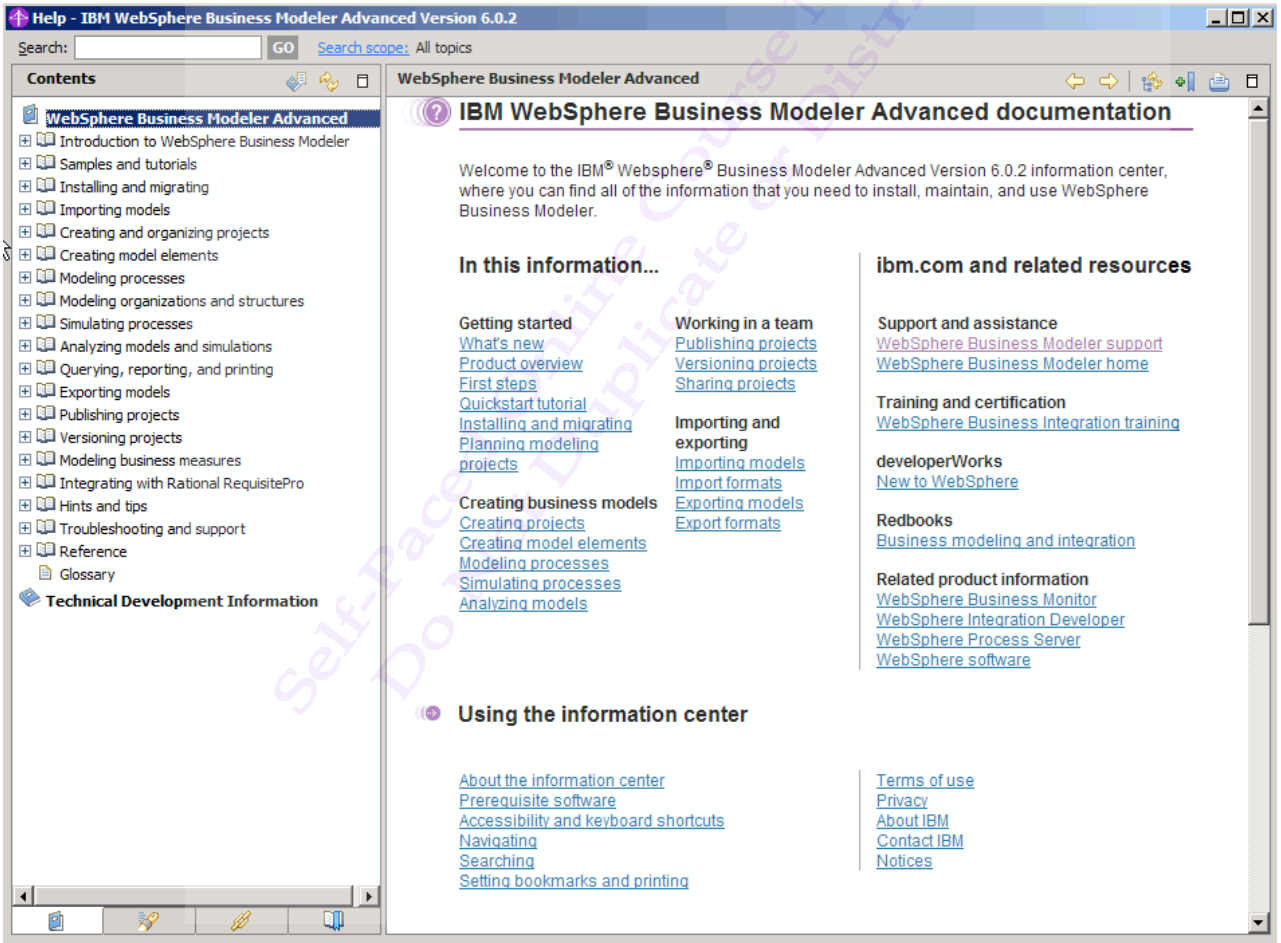
Exercise instructions

Part 1: Launching the Modeler help

__ 1. To launch Modeler help, from the menu bar, click **Help —> Modeler Help**.



A **Help - IBM WebSphere Business Modeler Advanced Version 6.0.2** window will open.



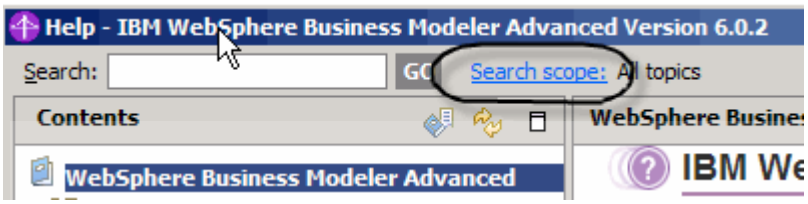
The Modeler help is also known as the information center, where you can find all of the information that you need to install, maintain, and use WebSphere Business Modeler.

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A search function is available for you to perform a search on any information about the Modeler and the technical development information. You can limit the search scope to only WebSphere Business Modeler.

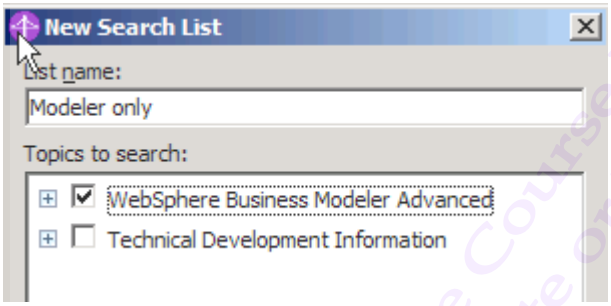
__ 2. Click the **Search scope** link on the top of the window.



__ 3. Click the **New** button.

__ 4. Enter `Modeler only` as the List name.

__ 5. Select the **WebSphere Business Modeler Advanced** check box for the topics to search.



__ 6. Click **OK.**

__ 7. Click **OK** to return to help.

The **WebSphere Business Modeler Help** will search for Modeler only.

Part 2: Using the Modeler help

Use the search function to locate the following topics and answer the questions.

__ 1. Name the static analysis that includes the names of the connectors on the path.

_____

__ 2. What are the definitions of stop and end?

_____

__ 3. What are the definitions of roles and resources?

_____

__ 4. How do you navigate the Project Tree using the keyboard?

_____

__ 5. You were not able to connect to the CVSNT repository during the check-out. What is a possible cause?

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_____

__ 6. You were examining the Resources costs summary report. There is a column called Annual Per Time Unit Cost. How does the Modeler derive this value?

_____

__ 7. Where do you find out the new functions and features for the current release?

_____

__ 8. During the model validation, you got an error — ZNO000409E — Incompatible input and output on connection. How do you fix this error?

_____

__ 9. Close the Modeler Help window.

__ 10. Exit Modeler.

The solution is provided as an appendix at the end of the exercise.

You may play the flashcard game after completion of the lab exercise.

END OF EXERCISE

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Exercise 14.There is no exercise for this unit

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Solution:

Exercise 1 — Review questions

There are no review questions in this unit.

Exercise 2 — Review questions

There are no review questions in this unit.

Exercise 3 — Review questions

__ 1. What are the four panes in Modeler when you click the Apply 4-pane layout button?

Project Tree, Outline view, process editor, and **Attributes view.**

__ 2. What is the advantage of using the Quickstart wizard in Modeler?

The Quickstart wizard enables you to quickly create a modeling project.

__ 3. What is the difference between a workspace and a project?

A workspace is a folder in which WebSphere Business Modeler stores model information and user preferences on the hard drive.

A project is the top-level container that holds all of the catalogs, processes, and modeling elements related to a particular work effort.

__ 4. Name some of the analyses you can conduct using the Modeler.

Static analysis, dynamic analysis, and visual analysis

__ 5. Name some of the basic elements you use in your process model.

Process, service, task, decision, business item, and repository.

Exercise 4 — Review questions

__ 1. What are the three modeling modes in Modeler that you can set when you create your process model?

Basic, intermediate, and advanced.

__ 2. What is the function of a repository in Modeler?

Repositories represent locations for business items.

__ 3. What is the difference between a task and a process?

A task is a basic unit of work performed in the process, and cannot be decomposed.

Processes are more complex than tasks, and are represented as a sequence of activities that are linked by flows of control and data. Activities can be other processes, as well as tasks and other elements that control flow.

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__ 4. What is the difference between a stop and an end?

A stop node marks the termination of a process.

An end node is a visual marker within a process that identifies where a particular flow ends.

__ 5. What is a service in Modeler?

Services are external processes executed outside the organization.

__ 6. What is the purpose of converting elements from local to global?

Activities are reusable or will require specific analysis, and the new global elements will appear in the Project Tree.

__ 7. Name some of the flow control elements that can be used in a process model.

Simple decision, multiple-choice decision, merge, fork, join, and connection

Exercise 5 — Review questions

__ 1. What is the definition of a business item?

Business data, documents, work products, or physical commodities that are transformed by the process

__ 2. What is the difference between business service and a service in Modeler?

Business services are model element representations of WSDL (Web Services Definition Language) files.

Services are external processes executed outside the organization.

__ 3. What is a business service object?

Business service objects are model element representations of XSD (XML schema) files.

__ 4. When defining timetables, how do you specify lunch break or vacation time for the resources?

Use the exemption periods to cover lunch hours, vacation time, and weekends.

__ 5. What is the difference between roles and resources?

Roles add additional characteristics to resources while resources represent the people, equipment, or material used to perform a task.

__ 6. What is the function of a classifier?

Classifiers enable users to categorize tasks and other process elements for decision-making or process optimization, and it can be shown on the diagram for visual analysis or on tables for numerical analysis.

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Exercise 6 — Review questions

__ 1. What is the advantage of displaying a process diagram in swimlane layout?

Arranges the process flow in a way to focus on the interaction between:

- **Roles**
- **Organization units**
- **Locations**
- **Classifiers**
- **Individual resource definitions**
- **Bulk resource definitions**

__ 2. What is the relationship between a local process and a subprocess?

A subprocess is a local process within another process.

__ 3. In which loop does it repeat while some condition is satisfied, and it tests its condition at the end of the loop?

Do-while loop

__ 4. If a multiple-choice decision has one or more outcomes, how and where in Modeler do you specify?

Under the general tab of Decision attributes view, check the "Inclusive" box.

__ 5. What types of attachments can be added to the process model?

In additional to URL, files such as html, documents, spreadsheet, or pdf can be attached.

Exercise 7 — Review questions

__ 1. What are the four fundamentals of the model validation?

Syntax, Semantics, Sense and Standards.

__ 2. What is activities unable to start analysis?

Activities unable to start analysis returns a list of the activities of the process that cannot start because of problems with their input criteria or with the size of their resource or role requirements.

__ 3. What is activities by classifier analysis?

Activities by classifier analysis returns the activities of the process that are associated with each classifier value of selected classifiers.

__ 4. What is matrix analysis?

Matrix analysis enables the user to select two different types of model elements and to show the associations between model elements of these

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types. For example, resource role matrix analysis shows the relation between the resources and their roles.

Exercise 8 — Review questions

__ 1. What is a process procedure report?

It shows the sequence of steps within a process, and the relationships of a process to other processes.

__ 2. What is a business item utilization report?

The Business item utilization report identifies all the business items in a model, including information about the utilization of each business item.

__ 3. What is a resource specification report?

The Resource specification report shows the information contained in a resource specification which shows the values contained in the specification of the selected element.

__ 4. What is the function of queries in Modeler?

Queries can be used to confirm that the content of your models accurately represents your business, to gather required information for making business decisions, to document and disseminate specific types of information, and also to define the content that is used for creating reports.

Exercise 9 — Review questions

There are no review questions in this unit.

Exercise 10 — Review questions

__ 1. Which two version control systems does the Modeler support?

IBM Rational ClearCase and Concurrent Versions System (CVS).

__ 2. What is the difference between “commit” and “check out” when using version control in Modeler?

You commit (check in) project data to the repository for the first time.

You check out (copy to a different local machine) to make changes.

__ 3. Which version control system allows users to lock and unlock elements in Modeler?

IBM Rational ClearCase

__ 4. What is the difference between “update” and “synchronize” when using version control in Modeler?

Update retrieves the latest version of the elements in the catalog or project from the repository.

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Synchronize compares the local contents of the catalog or project with the contents of the repository.

__ 5. What is the function of “get content”?

The `get content` command will retrieve a specific version of a component to the local workspace and overwrite any local changes.

Exercise 11 — Review questions

__ 1. What are the benefits of the WebSphere Business Publishing Server?

The primary vehicle for validating published business processes is the comment. The published business processes may have attachments and can also serve as training tool.

__ 2. What are the four portals in the WebSphere Business Publishing Server?

- **Welcome portal**
- **Draft portal**
- **Released portal**
- **Administration portals**

__ 3. What is the difference between “draft” and “released” portal?

Draft portal displays projects that can be reviewed and provide comment.

Released portal displays projects that are ready to be used as a reference.

__ 4. What are the five portlets to be found on the draft portals?

Project Tree, Model Elements, Outline, Attributes, and Comments

__ 5. How can a user tell if there is a comment or an attachment for an element in the Project Tree?

A paper clip symbol indicates that an attachment exists.

An exclamation mark indicates that a comment exists.

Exercise 12 — Review questions

__ 1. What are the restrictions when importing Visio shapes to Modeler?

Connections in Visio that are not attached to connection points on Visio shapes are not mapped to Modeler. Be sure to use the <glue to connection point> option in Visio. Visio import always creates a single process without subprocesses. In Modeler, each node must have a unique name. If one or more shapes have the same name in Visio, the names will be differentiated by the addition of a number.

__ 2. Which version of MS Visio does the Modeler support?

2002 or 2003

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__ 3. What is the XML file format used for?

The XML file that contains the mapping between Microsoft Visio shapes and Business Modeler elements

__ 4. Name some of the delimited text attributes that are not supported by the Modeler import.

- **Expressions (used in rules and in default values)**
- **Scope dimensions (used in roles)**
- **Timetables (used in resources for costs and availability)**
- **Preconditions**
- **Advanced input logic (constraints and correlations)**
- **Advanced output logic**
- **Inputs that belong to more than one input criteria**
- **Outputs that belong to more than one output criteria**
- **Resources assigned to tasks**
- **Organizations assigned to tasks**

Exercise 13 — Review questions

__ 1. Name the static analysis that includes the names of the connectors on the path.

Paths unable to be followed analysis

__ 2. What are the definitions of stop and end?

A stop node marks the end of a process.

An end node is a visual marker within a process that identifies where a particular flow ends.

__ 3. What are the definitions of roles and resources?

Roles add additional characteristics to resources.

Resources represent the people, equipment, or material used to perform a project or a task.

__ 4. How do you navigate the Project Tree using the keyboard?

You can navigate the Project Tree using the keyboard instead of using a mouse.

To move from node to node in the Project Tree, use the up and down arrow keys. To expand and contract nodes, use the left and right arrow keys, respectively

__ 5. You were not able to connect to CVSNT repository during the check-out. What is a possible cause?

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The cause may be due to an incompatibility between CVSNT and the Eclipse platform on which WebSphere Business Modeler is built. You need to configure CVSNT to fix the incompatibility.

__ 6. You were examining the Resources costs summary report. There is a column called Annual Per Time Unit Cost. How does the Modeler derive this value?

The annualized cost coming from the cost per time unit values of the role, based on a 366-day (8784-hour) year.

__ 7. Where do you find out the new functions and features for the current release?

In the “What’s new” section

__ 8. During the model validation, you got an error — ZNO000409E — Incompatible input and output on connection. How do you fix this error?

ZNO000409E:

Incompatible input and output on connection "connection name." The output of element "element name" does not produce the collection of unique data items required by the input of element "element name."

Action:

Either edit the output of the first element to produce the required date item collection or edit the second element to expect a different input.

Exercise 14 — Review questions

There are no review questions in this unit.

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Appendix A. Modeler glossary

This glossary defines the terms used in IBM WebSphere Business Modeler.

A

activities by classifier analysis

Static analysis that lists the activities in a process that are associated with each classifier value.

activities by location analysis

Static analysis that lists the allocations of locations to activities in a process.

activities by organization unit analysis

Static analysis that lists the allocations of organization units to activities in a process.

activities unable to start analysis

Static analysis that lists the activities in a process model that might not run due to empty input criteria, unavailable resources, or unavailable inputs.

activity

Work performed in a business process. Processes, tasks, services, and loops are examples of activities.

activity cost analysis

Dynamic analysis that displays the average costs incurred by all instances of each activity in a simulated process, including the average revenue, run cost, wait cost incurred while waiting for resources, allocated resource cost, total cost, and profit.

activity cost and duration analysis

Static analysis that lists the cost and minimum working duration of each action in a process based on the resource requirement for the action.

activity cost per time unit analysis

Dynamic analysis that displays the average cost per time unit for all instances of each activity in a simulated process. The costs that this analysis displays include the average processing cost, wait cost incurred while waiting for resources, and total cost.

activity duration analysis

Dynamic analysis that displays the average times for all instances of each activity in a simulated process, including the average elapsed durations, processing durations, wait time, delay time, and throughput.

activity resource allocation analysis

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Dynamic analysis that displays the resources allocated for all instances of each activity in a simulated process. This analysis lists each resource with the average allocation time, cost, and shortage.

activity resource and role leveling analysis

Static analysis that compares the number of required resources or roles to the number of available resources or roles for each activity in a process.

activity statistics analysis

Dynamic analysis that displays activity statistics for all instances of each activity in a simulated process, including the number of times each task ran successfully, and the number of times each task failed or timed out.

activity throughput analysis

Static analysis that lists the throughput (quantity of work items processed in a unit of time, such as 30 work items per hour) of each activity in a process based on its required resources, and calculates the maximum throughput that can be reached if the allocated resources are increased.

ADF

Activity Decision Flow. The format in which models are exported from WebSphere Business Integration Workbench 4.2.4. These models can be imported into WebSphere Business Modeler.

aggregate metric

A metric that is calculated by finding the average, maximum, minimum, sum, or number of occurrences of an instance metric across multiple runs of a process. Examples of aggregate metrics are an average order amount, a maximum order amount, a minimum order amount, the total order amount, or the number of occurrences of $500 for an order amount.

aggregated analysis

A category of dynamic analysis that provides summary results from a simulation run.

alert

A notification used in WebSphere Business Monitor to warn an observer of a business situation that might require action. Alerts are received and displayed in the Alerts view of WebSphere Business Monitor dashboards. Using Adaptive Action Manager, you can configure an alert to lead to an action, such as sending an e-mail.

Alerts view

A dashboard view in WebSphere Business Monitor that displays alerts to notify users of conditions that might warrant business actions.

annotation

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An explanatory note or comment. Annotations can be added to a diagram or attached to elements in the diagram.

asynchronous

A way of calling an activity in which the calling process does not wait for the activity to complete.

attribute

A property, quality, or characteristic that can be associated with a business process element or program function. Examples include a cost or location attribute for a resource in a process model, or a paper-size attribute that affects how a diagram prints.

availability

The time periods during which a resource is accessible. When a resource is available, it can satisfy a resource requirement of a task. For example, a contractor might have an availability of 9 a.m. to 5 p.m. every weekday, and 9 a.m. to 3 p.m. on Saturdays.

B

basic type

A type whose values have no identity (that is, they are pure values). Basic types include Integer, Boolean, and String.

BPEL

See Business Process Execution Language.

branch

A distinct path leading to or originating from an element in a process model. Decisions and forks have one input branch and multiple output branches. Joins and merges have multiple input branches and one output branch.

breakpoint

A marker that can be applied to an activity in a simulated process. When an *activity* with a breakpoint is triggered in a simulation run, the simulation pauses until the user restarts it.

bulk resource

A collection of resources in which the individual elements are not or do not need to be uniquely identified. Bulk resources are used when a quantity of a resource is required for a task. For example, a task might require ten employees or ten liters of water. Bulk resources can be non-consumable (such as employees, vehicles, or equipment) or consumable (such as fuel or printer paper). Consumable resources are diminished or used up during the process.

bundle

A set of *tokens* that are transferred between nodes in a simulation as a com-

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plete group.

business analyst

A specialist who analyzes business needs and problems, consults with users and stakeholders to identify opportunities for improving business return through information technology, and transforms requirements into a technical form.

business group

A place to collect any elements that you would like to group together. You can create different business groups for companies, processes, parts of processes, or any other grouping that reflects the way you want to work.

business item

A business document, work product, or commodity that is either produced by a task or process (such as an invoice) or causes a process to start (such as a customer inquiry). Other examples of business items are manufacturing order, mother board, power supply, and memory chip (in a PC assembly process), itinerary and customer information record (in a trip reservation process), and passenger (in a transportation process). You can use a business item directly in a process, or you can create an instance of it.

business item instance

A particular occurrence or example of a business item. If you defined a business item called Invoice, then an example of a business item instance would be “Invoice #1473.”

business item specification query

A predefined query that shows the information in the specification for one or more selected business items.

business item template

A category used to model a group of business items that share common properties. After these properties are defined in the template, they are inherited by all business items using the template. For example, an organization might define a number of forms to be used in human resource (HR) processes, all of which have fields for date, employee number, HR form number, and HR administrator.

business measure

A measure that describes the performance management aspects of a business that are required for real-time business monitoring. Business measures include aggregate and instance metrics and KPIs.

business objective

An executive statement of direction in support of a corporate strategy. A business objective is a high-level goal that is quantifiable, measurable, and

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results oriented.

business operations

The ways in which an organization operates, including its processes and organizational structure. For example, an organization might have a management structure and processes defined for everything from taking vacation days to submitting travel expenses.

Business Process Execution Language

An XML-based language for the formal specification of business processes and business interaction protocols. Business Process Execution Language (BPEL) extends the Web services interaction model and enables it to support business transactions.

business service

A representation of a Web Service Definition Language file (.wsdl) imported into WebSphere Business Modeler to define existing Web services. A business service is a collection of *business service definitions* that can include *business service objects*.

business service definition

A representation of the WSDL PortTypes in a business service. A business service definition describes a specific set of *business service operations* that are used to perform related business functionality.

business service object

A representation of an XML schema file (.xsd) imported into WebSphere Business Modeler. There are inline XML schemas and schema types within WSDL files. A business service object is a collection of *business service object definitions* and *business service object templates*.

business service object definition

A representation of the WSDL ComplexType in an inline schema, or the XML schema type (SimpleType, ComplexType, Anonymous ComplexType, or Anonymous SimpleType) in an XML schema file. There are inline XML schemas and schema types within WSDL files. A business service object definition is similar to a *business item* and is used to define the business data that is required when a *business service operation* is invoked.

business service object template

A representation of an XML schema ComplexType that has the abstract attribute set to true. There are inline XML schemas and schema types within WSDL files. The business service object template is similar to a *business item template* and abstractly defines the business data that is required when a *business service operation* is invoked.

business service operation

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A representation of the WSDL Operation in a business service definition. A business service operation describes a business function and includes the *business service object definitions* that are required when the operation is invoked. A business service operation also describes the *business service object definitions* that result from completing the business service operation. For example, a Product Search business service operation requires a Product name (a *business service object definition*) and returns a Product *business service object definition*. Business service operations can be added to process diagrams as non-editable services.

C

case

A specific run path in a process that contains multiple possible paths.

catalog

A container that, depending on the container type, holds processes, data, resources, organizations, or reports in the Project Tree view.

category

A container that allows you to represent qualities of elements in a *structure* diagram.

chart series

A selection of a category of data that will be represented by a chart in a report. A chart can have multiple chart series to represent multiple types of data.

classifier

A group name that can be assigned to a task or other process element to categorize the element. Predefined classifiers are provided to classify elements by quality control, value added, and workflow.

comparison analysis

A category of dynamic analysis that allows you to compare the weighted average analysis results for two simulated processes that use the same input parameters.

condition

An expression that can be evaluated to either true or false. A condition can be expressed in natural language text, mathematically formal notation, or in a machine-readable language.

connection

A link between two elements. Connections can be used to specify the chronological sequence of activities in a process.

correlation condition

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A condition used to correlate input to a particular runtime instance of a task or process. For example, if there are multiple instances of a single task already running, and new input arrives that could be delivered to a running instance, then the correlation condition is used to identify the task instance that should receive the input.

critical path

The series of activities that must occur as scheduled for the completion date of a case to be met. The critical path is the path among parallel paths (in the same case) with the longest duration. Each path considered begins at a start node, or an input to the process, and ends at a stop node.

CVS

Concurrent Versions System. An open-source, network-transparent version control system.

cycle time

The time between the beginning and end of a process instance in a process simulation. Cycle time includes wait time while an activity in the process waits for a resource to become available.

D

dashboard

A container (portal page) that can contain one or more views (portlets). In WebSphere Business Monitor, a dashboard enables users to monitor business performance through a set of views.

data catalog

A collection of models representing objects, such as business items and notifications, to be used as inputs and outputs in process modeling.

data model

A model defining the structure of business artifacts that business operations operate on.

database schema

A collection of database objects, such as tables, views, indexes, or triggers, that define a database. A database schema provides a logical classification of database objects.

decision

A process element that routes an input to one of several alternative outgoing paths, depending on its condition. A decision is like a question that determines the exact set of activities to perform during a process run. Questions might include "What type of order?" and "How will the order be shipped?"

delimited text

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A file format that consists of text separated into meaningful chunks by specific characters. The chunks of text are typically individual fields. The specific character is called a delimiter, and can be any character that is not found in the text. The comma and tab are common delimiters. If the delimiter is used as a character in the text, it must be enclosed in a pair of text qualifiers, typically double quotation marks.

dimension

A data category that is used to organize and select instances for reporting and analysis. Some examples of dimensions are time, accounts, products, and markets.

Dimensional view

A dashboard view in WebSphere Business Monitor that generates multidimensional reports that analyze different business aspects of data.

distribution

The relative number of times each possible outcome will occur in a number of trials.

do-while loop

A loop that repeats the same sequence of activities as long as a condition is true. Unlike a while loop, a do-while loop tests its condition at the end of the loop. This means that its sequence of activities always runs at least once.

downstream

Indicates the position of a subsequent element or activity in the process flow relative to a particular point. An activity in a process receives inputs from upstream nodes, and sends outputs to other downstream nodes.

dynamic analysis

The process of extracting targeted types of information based on the results of process simulations. Dynamic analysis can be run only if simulation results are available.

E

elapsed duration

The difference between the start time and the end time of a task or a process, which might include wait time as well as processing time. If a task instance is created, but one or more required resources are unavailable, the elapsed duration will be longer than the working duration.

element

A distinct, self-contained unit of a business process model. Examples of elements are tasks, projects, snapshots, resources, and connections.

end node

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A visual marker in a process that identifies where a particular flow in that process ends. Other concurrent flows in the same process will continue running.

entity

An element in a *structure* diagram, such as a business item instance, an organization unit, or a resource.

entity structure analysis

Static analysis that displays the occurrences of a selected instance (such as a business item instance, an organization unit, or a resource) within a selected set of *structures*.

F

FDL

FlowMark Definition Language. An external format for defining programs, data structures, and workflow models in a flat text file. Models exported from WebSphere Business Modeler in FDL format can be imported into IBM WebSphere MQ Workflow.

filter expression

An optional expression that a notification receiver uses to filter the notification instances that it will accept. The notification receiver listens for a particular type of notification, and it will only accept notification instances that meet the criteria specified by the filter expression.

flow

The representation of interdependencies between activities in a structured format. In WebSphere Business Modeler, the flow always moves forward in time.

for loop

A loop that repeats the same sequence of activities a specified number of times.

fork

A process element that splits the process flow into two or more concurrent paths, enabling two or more tasks to be performed in parallel. A fork makes copies of its inputs and forwards them along each of the paths. Forks typically precede joins.

free float

A period of time in a process flow after a task runs and before the subsequent task can begin to run. Free floats might result from parallel paths in a process that take varying lengths of time to complete.

G

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Gauge view

A dashboard view in WebSphere Business Monitor that helps you visualize information by representing a KPI value on a gauge, like a speedometer.

global element

Available to any process within its own project. A global element is displayed in the Project Tree view and can be used in multiple processes. Tasks, processes, and repositories can be either global (referenced by any process in the project) or local (specific to a single process).

I

individual resource

A single resource that can be uniquely identified, such as a person or computer. Individual resources are used when a specific resource must be allocated to a task. For example, the Mary Smith resource must perform the Approve Payment task.

information repository

See repository.

inline schema

An XML schema in a Web Service Definition Language file (.wsdl).

input

An entry point through which an element is notified that it can start, typically because an upstream element on which it depends has finished running. If the element has all of its required inputs, then it will start.

input branch

The branch of a decision, fork, join, or merge that contains the inputs.

input criteria

Number and types of inputs required to start a task or process. The singular form is *input criterion*.

input and output paths analysis

Static analysis that displays the paths that lead to and from a specified point in a process.

instance

A particular occurrence or example of something.

instance metric

A metric that returns the result, such as the amount of an order, from one run of the process.

Instances view

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A dashboard view in WebSphere Business Monitor that displays instance metrics.

internal rate of return

The interest rate received for an investment based on anticipated expenses and income that will occur at regular periods.

interrupt

A condition that applies to a simulation that causes the simulation run to stop if the condition is met.

J

join

A process element that recombines two or more parallel control flow paths that all must complete before a single control flow continues along a single path to a common process element. A join also synchronizes data flow, waiting for input to arrive at each of its incoming branches. The join does not recombine business items, so each business item from the join is permitted to continue. Joins typically follow forks.

K

key

A character or set of characters used to identify an item or group of items. For example, the user ID is the key to identify a user file record.

key performance indicator

A significant measurement used to track performance against a business objective. A key performance indicator (KPI) has a target or ranges, or both, to measure the improvement or deterioration in the performance of an activity that is critical to the business.

KPI

See key performance indicator.

KPI view

A dashboard view in WebSphere Business Monitor that shows the details of the modeled KPIs, such as the KPI value relative to the defined ranges and the target, if applicable, and the status of the KPI.

L

library

A container for the model elements, including business items, processes, tasks, resources, and organizations. The library node is visible only in the Project Tree view if all filters are turned off. It is used to differentiate the business groups from the complete set of available elements in a project.

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local

Available only within its own process. A local element exists only as long as the process does. Tasks, processes, and repositories can be either global (referred to by any process in the project) or local (specific to a single process).

location

A particular occurrence or example of a location definition. If you have a location definition called USA Call Center, an example of a location would be Toledo Call Center.

location definition

A destination that is relevant to the model. Location definitions can be street addresses, cities, areas, or countries. For example, a model could show various branch offices or customer locations. You can use location definitions directly in a process, or you can create a location (an instance) based on the location definition.

location definition template

A category used to model a group of locations that share common properties. After these properties are defined in the template, they are inherited by all locations using the template. For example, an organization might define a number of sales office locations, all of which share properties (such as monthly rent and square footage) that are defined in a sales office location definition template.

location specification query

A predefined query that shows the information in the specification for one or more selected locations.

loop

A repeating sequence of activities in a process.

M

map

A map is a specialized task that transforms data from one structure to another. A map is provided for diagram purposes only.

matrix analysis

Static analysis that displays associations between all examples of two different types of model elements that you specify (such as resources and roles).

measure

The dimensions, capacity, or amount of something ascertained by measuring. See also business measure.

merge

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A process element that recombines multiple processing paths, typically after a decision. A merge brings several alternative paths together.

metric

A container for information, usually a business performance measurement.

model

A representation of a process, system, or subject area, usually developed for understanding, analyzing, improving, and replacing the item being represented. A model can include a representation of information, activities, relationships, and constraints.

monitored values

The values that you want WebSphere Business Monitor to return after the process has been monitored.

N

net present value

The estimated monetary value of an investment based on expected returns and expected costs, where these expected returns and expenses are discounted by a rate that reflects inflation and opportunity costs.

node

A shape in a diagram. Nodes are the fundamental shapes that make up a diagram, and connections are created among them.

notification

An occurrence in a process that can trigger an action. A notification can be used to model conditions of interest that are to be transmitted from a sender to a (typically unknown) set of interested parties (the receivers).

notification broadcaster

A specialized task that publishes *notifications*. A notification broadcaster acts as a publisher. When a notification is broadcast, any *notification receiver* within its scope that is listening for (subscribing to) that notification receives it.

notification receiver

A specialized task that listens for *notifications*. A notification receiver acts as a subscriber. When it receives a notification, it produces the output that has been modeled, and then terminates.

notification specification query

A predefined query that shows the information in the specification for one or more selected notifications.

notification template

A category used to model groups of *notifications* that share common proper-

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ties. After these properties are defined in the template, they are inherited by all notifications using the template. For example, the notifications signaling "fire alarm," "burglar alarm," and "power outage, might share a template called "alarm notification" that defines common properties for these notification types, such as date, time, and detecting sensor location.

O

observer

A task that watches a process and its associated repositories, and produces output when a certain condition becomes true (for example, a threshold value has been reached).

organization

An entity where people cooperate to accomplish specified objectives. For example, an organization can be an enterprise, a company, or a factory.

organization catalog

A collection of models representing organizations, to be used in process modeling.

organization definition

An organization that is relevant to the model. Organization definitions can be companies, departments, or workgroups. You can use organization definitions directly in a process, or you can create an organization unit (an instance) based on the organization definition.

organization definition template

A category used to model a group of organizations that share common properties. After these properties are defined in the template, they are inherited by all organizations using the template. For example, a company might define a number of sales organizations, all of which share properties (such as area covered and number of employees) that are defined in a sales office organization template.

organization unit

A particular occurrence or example of an organization definition. If you have an organization definition called Department, an example of an organization unit would be Sales and Marketing.

organization unit specification query

A predefined query that shows the information in the specification for one or more selected organization units.

output

An exit point through which an element can inform downstream elements that they can now start.

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output branch

The branch of a decision, fork, join, or merge that contains the outputs.

output criteria

Number and types of outputs required for a task or process to complete. The singular form is *output criterion*.

P

path

A route that the flow might take through the activities in a process. There might be several alternative paths.

path cycles analysis

Static analysis that displays a list of the paths in a process that have a closed loop of connectors and activities.

paths unable to be followed analysis

Static analysis that displays the paths in a process model that might not run due to empty input criteria, unavailable resources, or unavailable inputs.

postcondition

A definition of what must be true when a task or process ends.

precondition

A definition of what must be true when a task or process starts.

preference

A setting for a condition or behavior associated with an aspect of product configuration or function. For example, preferences might store network settings for a team development environment, or contain default settings for new elements.

process

Any activity performed within a company or organization. In the context of WebSphere Business Modeler, a process is a progressively continuing procedure consisting of a series of controlled activities that are systematically directed toward a particular result or end.

process activities total time analysis

Weighted average case analysis that displays the average total elapsed duration of task instances that are involved in the process instances corresponding to each case. This analysis also displays the weighted average elapsed duration across all cases.

process break even analysis

Weighted average case analysis that calculates the number of times a process must run to generate a profit that recovers a specified fixed cost.

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process case

A specific path in a business process, based on outcomes of decisions.

process cases analysis

A category of dynamic analysis that displays details of all generated process instances and weighted average values across all cases calculated according to the distribution of process instances to each case.

process cases summary analysis

Weighted average case analysis that displays summary details for all the process cases that are produced during the simulation of a process.

process catalog

A collection of models representing processes, tasks, and repositories.

process cost analysis

Weighted average case analysis that displays a list of process cases and the average revenue, average run cost, average wait cost incurred while waiting for resources, average allocated resources cost, and average profit for the process instances running through each possible path (case). This analysis also displays an weighted average of the analyzed costs across the various process cases.

process details query

A predefined query that shows information about a process, including the catalog, resources, roles, organization units, locations, and business items that are associated with the process.

process diagram

A visual representation that illustrates the flow of work for a process. The objects in a process diagram include tasks, processes, connections, business items, resources, and decisions.

process duration analysis

Weighted average case analysis that returns a list of the process instances and shows the elapsed duration and the throughput of each process instance. The conclusion of this analysis is the weighted average value for each item.

process instance

A single initiation, run, and completion of a process in a simulated or real environment.

process instance activities free float analysis

Process instance analysis that returns a list of the task instances in a specific process instance, and quantifies the duration of the period after the task ran and before the subsequent task runs.

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process instance analysis

A category of dynamic analysis that provides information based on the simulation results of an individual process instance.

process instance cost analysis

Process instance analysis that displays cost information about the task instances involved in a specific process instance, including the revenue generated from each task instance, the run cost, the wait cost incurred while waiting for resources, allocated resources costs, total cost, and profit.

process instance cost report

A report that shows the results of a process instance cost analysis.

process instance critical path analysis

Process instance analysis that displays the process elements that are included in the critical path, or processing path that takes the longest time to complete of all parallel paths in a process instance, where each path considered begins at a start node or an input to the process and ends at a stop node.

process instance resource allocation analysis

Process instance analysis that displays information about the task instances involved in a specific process instance, including the start time of the task instance, the resources allocated per task instance and quantities of allocated resources, the allocation duration, shortage, and cost.

process instance shortest path analysis

Process instance analysis that displays the process elements that are included in the shortest path, or the process instance that has the smallest number of steps.

process instance time analysis

Process instance analysis that displays time information about the task instances involved in a specific process instance, including the start and finish times of the task instance, elapsed duration, processing duration, and wait time.

process instances summary analysis

A category of process instance analysis that describes the results from process simulation at a case and instance level.

process model

A representation of the real-time business process that is composed of the individual steps or activities that make up the process, contains the conditions that dictate when they occur, and identifies the resources required for its performance or run.

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process model analysis

A category of static analysis that provides information based on a process model.

process NPV/IRR analysis

Net Present Value/Internal Rate of Return analysis. Weighted average case analysis that calculates the net present value of the process after a period of time identified by a specified payback period, and considering a specified discount rate depending on the weighted average process cost and profit.

process resource allocation analysis

Weighted average case analysis that displays weighted average resource allocation information for all activities in all process instances that are generated during a simulation.

process resource analysis

Weighted average case analysis that displays a list of the resources allocated on the task instances involved in all the process instances, and shows per resource the weighted average allocation duration, shortage duration, and allocation cost.

process specification query

A predefined query that shows the information in the specification for one or more selected processes.

process statistics query

A predefined query that shows the quantities of elements associated with a process, including resources, roles, organization units, locations, and business items.

processes break even comparison analysis

Analysis that compares the results of process instance break even analyses for two different simulated processes that use the same input parameters.

processes cost comparison analysis

Analysis that compares the results of process instance cost analyses for two different simulated processes that use the same input parameters.

processes cycle times comparison analysis

Analysis that compares the results of process instance cycle times analyses for two different simulated processes that use the same input parameters.

processes duration comparison analysis

Analysis that compares the results of process instance duration analyses for two different simulated processes that use the same input parameters.

processes NPV/IRR comparison analysis

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Net Present Value/Internal Rate of Return comparison analysis. Analysis that compares the results of NPV/IRR analyses for two different simulated processes that use the same input parameters.

processes resource cost comparison analysis

Analysis that compares the cost results of process instance resource cost analyses for two different simulated processes that use the same input parameters.

processes resource times comparison analysis

Analysis that compares the time results of process instance resource time analyses for two different simulated processes that use the same input parameters.

project

A grouping of information related to a single work effort.

Project Tree view

A view that displays the complete contents of all projects. From here, select elements and edit them, or select elements for operations such as exporting.

project versioning

The component that interacts with a *CVS* or *Rational ClearCase* server to share and create version projects and project data.

publisher

The component that sends a copy of a project or some of its elements to a server running WebSphere Business Modeler Publishing Server.

Q

qualification

A definition or measurement of a specific quality required for a role. A qualification can be used to specify the characteristics of a role, whether the role is associated with a person or with another type of resource.

qualified resource availability analysis

Static analysis that displays the times when one or more resources qualified for a specified role is available, and the number of qualified resources during each of these periods.

qualified resource availability for duration analysis

Static analysis that displays the times when one or more resources qualified for a specified role is available for a specified duration.

qualified resource cost analysis

Static analysis that displays the average cost of a specified role during a specified period of time, based on the average cost during the period of all

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resources that are qualified to perform the role.

qualified resources costs summary analysis

Static analysis that lists all the roles defined in a project and displays the calculated average cost for each role during a specified period of time, based on the average cost during the period of all resources that are qualified to perform each role.

qualified resources for role analysis

Static analysis that displays resources that are qualified to perform one or more roles that you select for the analysis.

query

A reusable request for information about one or more model elements.

query builder

A tool for creating queries.

R

range

A set of values to measure the value of a KPI against. You specify a range by giving the lower and upper bounds for the values. These bounds can be specified either as percentages of the KPI target or as actual values.

recurring time interval

A regular period of time of significance to a process, such as 9 A.M. to 5 P.M. on weekdays.

report

A formatted presentation of information relating to a model that can be seen online or in print, or exported to various file formats.

report catalog

A collection of report templates.

report container

A group of settings that define the overall presentation of a report, including page dimensions and orientation, margin sizes, and options for displaying title, author, and summary information.

Report view

A dashboard view in WebSphere Business Monitor that displays business performance reports relative to a time axis.

repository

A storage area for data. Every repository has a name and an associated type. There are two types of information repositories: local (specific to the process)

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and global (usable throughout a project).

repository specification query

A predefined query that shows the information in the specification for one or more selected repositories.

resource

A person, equipment, or material used to perform a task or a project. Each resource is a particular occurrence or example of a resource definition. For example, a resource definition called Service Vehicle would yield the Service Vehicle #3 resource.

resource and role leveling analysis

Static analysis that displays the quantity of the resources and roles that each task requires, and the quantity available.

resource availability for duration analysis

Static analysis that displays the times when a specified resource is available for a specified duration.

resource availability for duration report

A report that shows the results of a resource availability for duration analysis.

resource availability analysis

Static analysis that displays the times when a specified resource is available.

resource availability report

A report that shows the results of a resource availability analysis.

resource catalog

A collection of models that represent resources, such as employees, computers, and electric power, to be used as inputs and outputs in process modeling.

resource cost analysis

Static analysis that displays the average cost of a specified resource during a specified period of time.

resource definition

A definition of a person, equipment, or material used to perform a task or a project. Use resource definitions directly in a process, or create a resource (an instance) based on the resource definition.

resource definition template

A category used to model a group of resource definitions that share common properties. After these properties are defined in the template, they are inherited by all resources using the template. For example, an organization might define a number of employees, all of which share properties (such as title,

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salary, and date of employment) that are defined in an employee definition template.

resource model

A model that defines the resources used in business operations, including their roles, availability, and cost characteristics.

resource roles analysis

Static analysis that displays a list of resources and shows their associated roles.

resource specification query

A predefined query that shows the information in the specification for one or more selected resources.

resource utilization analysis

Dynamic analysis that shows all the resources allocated for the task instances in a simulated process, with their average allocation costs, durations, and shortages.

resources costs summary analysis

Static analysis that displays multiple selected resources and the average cost of each during a specified period of time.

role

The actions, authorities, and qualifications assigned to or expected of a person or group. For example, an employee resource could have the role of Customer Service Representative, Supervisor, or Manager.

role qualified resource analysis

Static analysis that displays a list of roles and the resources that are qualified to perform these roles.

role specification query

A predefined query that shows the information in the specification for one or more selected roles.

roles costs summary analysis

Static analysis that displays the costs of multiple roles for all periods during which the roles are available between a specified start and end time.

rule

A condition that must be satisfied when performing a business activity.

S

schema

A collection of attributes that defines an element definition. A database

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schema provides a logical classification of database objects.

service

An external entity outside the organization that can be used within the processes of that organization. Examples of services are those that are provided by suppliers or service organizations such as travel agencies, collection agencies, payroll services, security companies, and transportation companies.

service details query

A predefined query that shows information about a service, including the catalog, resources, roles, organization units, locations, and business items that are associated with the service.

service specification query

A predefined query that shows the information in the specification for one or more selected services.

service statistics query

A predefined query that shows the quantities of elements associated with a service, including resources, roles, organization units, locations, and business items.

setting

An attribute and corresponding value. For example, a setting of "Cost: $9.00 USD", defines the cost attribute as having a value of $9.00 USD. A setting "Page size: A4" sets the page size attribute to a value of A4.

shortest path

The processing path that takes the shortest time to complete of all parallel paths in a process instance, where each path that is considered begins at a start node or an input to the process and ends at a stop node.

simulation

A faster-than-real-time performance of a process in a virtual environment. Simulation enables organizations to observe how a process will perform in response to variations of inputs to the process, just as in a real-life work environment. Simulation also provides the ability to vary process input volume over time by adjusting resources and current allocations. Simulation output provides detailed information regarding resource usage levels and the results of cost and cycle-time calculations.

simulation mode

The method of selecting an output path that was used when simulating a process. The term *simulation mode* is displayed in dynamic analysis reports.

simulation profile

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A copy of a process that you can customize and run in the simulation view. You can create different simulation profiles within simulation snapshots.

simulation snapshot

A record of a modeling project at the moment when you simulate the process. A simulation snapshot also contains a snapshot settings folder that you can use to specify default values for the attributes of new simulation profiles that you create within the simulation snapshot.

specification

A declarative description of what something is or does.

static analysis

The process of extracting targeted types of information on the models in their static form. Static analysis can be run even if no simulation results are available.

static process cases summary analysis

Analysis that shows details of each of the possible process cases that a simulation profile can produce.

start node

A node that identifies the beginning of a process flow whenever it is not started by another process. A start node is typically used in the top-level process within the project.

stop node

A node that marks the end of a process. When a flow reaches a stop node while the process is running, the process immediately terminates, even if there are other currently running flows in the process.

structure

A series of elements that have been graded or ranked in a useful manner. A structure is a graphical representation of the relationships between different real entities in an organization.

structure definition

A graphical representation of a format that defines a structure. Create structures based on this definition.

subprocess

A process that is also a part of another process. *Subprocess* is another name for a local process.

swimlane

A visually separated row in a process flow diagram that groups all the activities in the process that are performed by a particular combination of roles, individual or bulk resource definitions, classifiers, organization units, or loca-

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tions. Swimlanes (a name derived from an analogy to lanes in a swimming pool) are visible only when you select the swimlane layout in the process editor.

synchronous

A way of calling an activity in which the calling process waits for the activity to complete.

systems analyst

A specialist who is responsible for translating business requirements into system definitions and solutions.

T

target

A value that a KPI should achieve, such as "300" or "5 days."

task

The basic building blocks in the model. Each task performs a function (does something). Visually, a task represents the lowest level of work shown in the process.

task details query

A predefined query that shows information about a task, including the catalog, resources, roles, organization units, locations, and business items that are associated with the task.

task specification query

A predefined query that shows the information in the specification for one or more selected tasks.

task statistics query

A predefined query that shows the quantities of elements associated with a task, including resources, roles, organization units, locations, and business items.

team support

See project versioning.

template

A grouping of elements that share common properties. These properties may be defined only once, at the template level, and are inherited by all elements using the template. In Java terms, this is an abstract class.

threshold

A setting that applies to an interrupt in a simulation that defines when a process simulation should stop based on a condition existing for a specified proportion of occurrences of an event.

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throughput

The average number of times per hour that an activity or a process can deliver output, calculated as an inverse of the average elapsed duration.

timer

A task that produces output at certain points in time.

timetable

A schedule of times. In business process modeling, timetables are typically associated with resources or costs. For resources, timetables indicate availability (such as 9 A.M. to 5 P.M.). For costs, timetables are useful if the cost varies with the time of day or time of year.

timetable specification query

A predefined query that shows the information in the specification for one or more selected timetables.

token

A unit of work that is transferred between nodes in a simulated process. A token might be accompanied by a business item or it might just represent a transfer of control between nodes.

type instance matching analysis

Static analysis that displays a list of the names and attribute values of every instance based on a selected type (such as a business item, an organization definition, or a resource definition).

type instance matching matrix analysis

Static analysis that displays a matrix of the names and attribute values of every instance based on a selected type (such as a business item, an organization definition, or a resource definition).

type structure analysis

Static analysis that displays the occurrences of a selected type (such as a business item, an organization definition, or a resource definition) within a selected set of structure definitions.

U

UML

Unified Modeling Language. A standard notation for the modeling of real-world objects as a first step in developing an object-oriented design methodology.

upstream

Indicates the position of a preceding element or activity in the process flow relative to a particular point. An activity in a process receives inputs from

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upstream nodes, and sends outputs to other downstream nodes.

W

wait cost

The cost incurred by an activity instance while it is not actively processing because it is waiting for a resource.

wait time

The time an activity spends waiting for resources rather than processing.

weighted average analysis

A category of dynamic analysis that provides information based on the process simulation results for all the possible process instances of a process, aggregated by their run paths (cases). In addition to the results for each case, the analysis displays weighted averages across all cases, where the results for each case are weighted according to the distribution of process instances to that case.

while loop

A loop that repeats the same sequence of activities as long as a condition is true. The while loop tests its condition at the beginning of every loop. If the condition is false from the start, the sequence of activities in the loop never runs.

working duration

The time when a task or a resource is actively working. The working duration of a task can be different from elapsed duration, which might include wait time as well as processing time.

workspace

The directory or disk that contains all project files and information, such as preferences, that might have been customized.

X

XSD

XML Schema Definition. A language for describing XML files that contain schema.

X field

The primary data field in a chart. In a line chart, the X field is typically displayed along the horizontal axis.

Y

Y field

A secondary data field in a chart. In a line chart, the Y field is typically dis-

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played along the vertical axis.

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Appendix B. Migrating from WebSphere Business Integration Workbench V4.2.4 to WebSphere Business Modeler V6

What this exercise is about

This appendix describes how to migrate your WebSphere Business Integration Workbench organizations to IBM WebSphere Business Modeler Version 6 projects.

What you should be able to do

At the end of the lab, you should be able to:

- Prepare an organization for migration
- Import from WebSphere Business Integration Workbench Version 4.2.4
- Clean up a project after migration

Requirements

Sample V4.2.4 model from
`C:\Program Files\IBM\Modeler6\samples\import\Workbench 4.2.4\Fmccred`

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Exercise instructions

Part 1: Preparing an organization for migration

You can make the migration of a WebSphere Business Integration Workbench Version 4.2.4 organization to a Business Modeler project easier to accomplish by preparing your organization first.

To make the migration go as smoothly as possible, it is important that the organization being migrated is clear and complete. To prepare your organization for migration, complete the following steps.

__ 1. Ensure that all the objects in your organization are named and have valid input and output connectors. Unconnected objects can cause problems in the migration.

__ 2. Minimize the use of any go-to nodes. Go-to nodes are transformed into connections during migration. However, the resulting connections can sometimes be difficult to follow visually since they run backwards across the diagram and often cross over multiple other connections.

__ 3. If you have any media information in your model, carry out the following steps:

   __ a. Create a task with a classification to indicate that it represents the act of moving data from one point to another.

   __ b. Associate the media to this new task as an additional resource.

   Media information is not migrated into Business Modeler. If you carry out this preparation, the additional resource is migrated to a bulk resource associated with the task.

__ 4. If you have any transfer duration information in your model, carry out the following steps:

   __ a. Create a task with a classification to indicate that it represents the act of moving data from one point to another.

   __ b. Associate a working duration with the task to indicate how long it takes to move the data from one point to the next.

   Transfer duration data is not migrated into Business Modeler. If you carry out this preparation, the timing information is preserved.

__ 5. If you plan to use the simulation capability of Business Modeler, then ensure that there is a phi at the start of every process in your WebSphere Business Integration Workbench organization. Also ensure that this phi is connected to the first task of the process. If the process contains multiple sets of tasks running in parallel, make sure that the initial phi connects to the first task of each of these sets. If the phi is missing, then the migrated model will create start nodes for the process. When the simulation is run, tasks attached to a start node begin running without requiring an input to initiate them.

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__ 6. Ensure that phis leading to and from a subprocess are compatible with the phis used in the subprocess model to define its inputs and outputs. This ensures that the WebSphere Business Integration Workbench validation occurs properly, and makes migration easier.

A missing phi at the input of a subprocess causes the migrated subprocess to begin with a start node, which means the subprocess starts running independently of the larger process being modeled. A missing phi at the output of a subprocess causes tasks after the subprocess to start running once the subprocess has completed, but without receiving any information from that subprocess.

Generally, a missing phi causes any data flow in the subprocess to be ignored and creates a model based only on control flow.

__ 7. Use the WebSphere Business Integration Workbench Validate tool to ensure that the model you want to migrate is valid before migration. Fix any validation errors that you receive.

__ 8. If you plan to migrate your business measures, use the Business Measures Validation tool to ensure that all the business measures in the process and their attributes are defined. Correct any errors that the validation procedure identifies.

After you have ensured that your original model is as clean and complete as possible, you can proceed to carrying out the migration by importing the .org file into a new project in Business Modeler.

Part 2: Importing from WebSphere Business Integration Workbench Version 4.2.4

You can import WebSphere Business Integration Workbench Version 4.2.4 organizations into new WebSphere Business Modeler projects. Importing an organization does not modify the original files.

Organizations can be migrated from the following versions of WebSphere Business Integration Workbench:

- Version 4.2.4
- Version 4.2.4 Fix Pack 1
- Version 4.2.4 Fix Pack 1 Hot Fix
- Version 4.2.4 Fix Pack 2
- Version 4.2.4 Fix Pack 3

If you are using a version of WebSphere Business Integration Workbench that is not supported for import, you must first open your organization in one of the supported versions and then save it.

You can import organizations into new projects only. If you want to use elements of an organization in an existing project, then you must first import the organization into a new

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project. You can then export the specific elements and import them into another existing project.

To import an organization into Business Modeler, complete the following steps:

__ 1. In the Project Tree, right-click and select **Import**.

The **Import wizard** opens.

__ 2. Select **WebSphere Business Integration WorkbenchV4.2.4 (.org)**.

__ 3. Click **Next**.

__ 4. In the **Source directory** field, specify the source directory of the organization (.org file) that you want to import.

__ a. Click **Browse**.

The **Browse For Folder** window opens.

__ b. Navigate to the desired folder.

For this lab, select `C:\Program Files\IBM\Modeler6\samples\import\Workbench 4.2.4\Fmccred`.

__ c. Click **OK**. The window closes.

The **Files** field now displays all the available organizations.

__ 5. Select the organization file that you want to import. For this lab, select `Fmccred.org`.

__ 6. Specify a name for the new project to create from the organization.

__ a. Under **Target Project**, click the **New** button.The **New Project** wizard opens.

__ b. Enter `FMCCred` as **New project name**.

__ c. Accept other default settings and click **Finish** to create a new project. The wizard closes. A new project is created with the name that you specified, and its name appears in the **Target project** field.

__ 7. Click the **Create simulation snapshot** check box.

Note: If you want Business Modeler to create a simulation profile based on the organization that you are importing, then select the Create simulation profile check box. Otherwise, simulation information contained in your original organization is not migrated to WebSphere Business Modeler.

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__ 8. Select the mapping preference that you want to use for the import. For this lab, select **Non-MQ Workflow**.

Note:

- Select one of the three **MQ Workflow** options if you are building a model with the intention of automating its processes using MQ Workflow. Each of the these options allows you to handle the import of business measures in a different way.
- Select **Non-MQ Workflow** for all other purposes.

MQ Workflow — no business measures

Use this option if you plan to automate the modeled processes using MQ Workflow but do not want to import any business measures information. Models imported with this option contain attributes required by MQ Workflow.

MQ Workflow — import business measures

Use this option if you plan to automate the modeled processes using MQ Workflow and you also want to import the performance model information contained in the original organization file. Models imported with this option contain attributes required by MQ Workflow.

MQ Workflow — import and create business measures

Use this option if you plan to automate the modeled processes using MQ Workflow and you not only want to import the performance model information contained in the original organization file, but also create business measures for any processes that do not already contain performance model information. Models imported with this option contain attributes required by MQ Workflow.

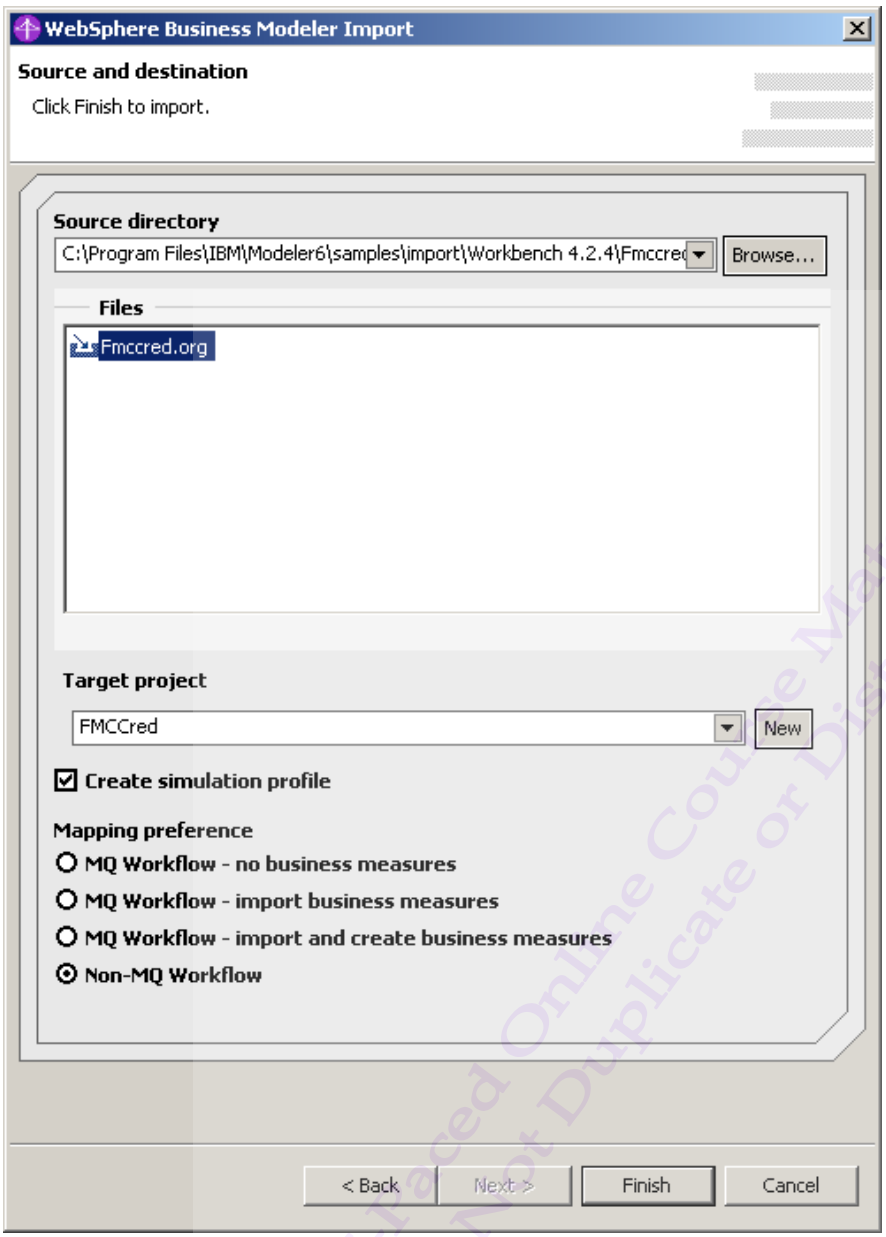
Non-MQ Workflow

Use this option for all other purposes. No performance model information is imported, and no business measures are created with this option.

The preferences that you choose have an effect on which WebSphere Business Modeler elements are used to replace the elements in the original model. In some cases, it can affect whether an element is migrated at all. If you have an organization in which you want different models imported using different options, then it is recommended you import the .org file multiple times, creating a new project for each option that you want.

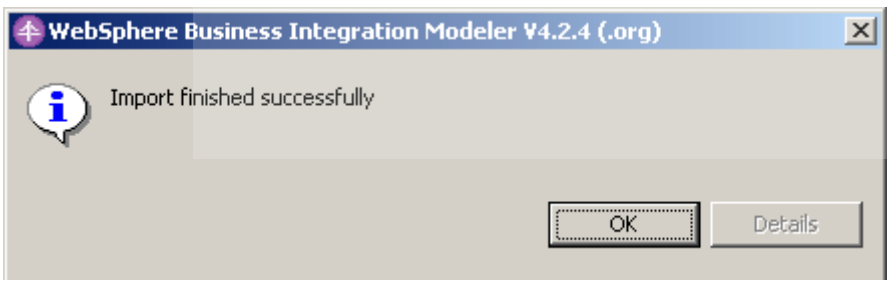
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__ 9. Click **Finish**.

It will take a while to import the v4.2.4 model. After importing successfully, it will display the following window.

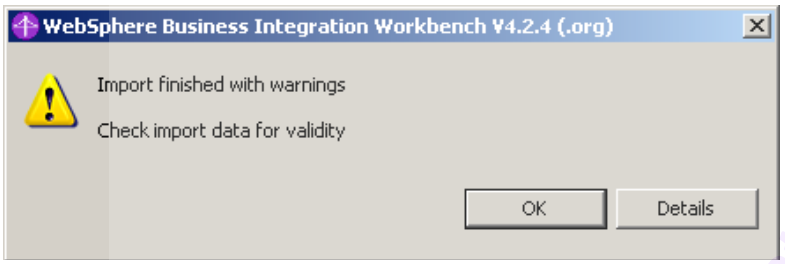


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Note: If a window opens saying that errors occurred during import, click **Details** to review the errors. If any of the errors require you to correct the original file, you will have to migrate it again after you make the corrections.

If there are only warning messages, the import activity is still successful. Therefore, you can click **Close** to close the detail view of the warning message after finish reading it. To fix the warnings, you should manually input/overwrite the elements in the workspace in Business Modeler.



__ 10. Click **OK**.

Part 3: Cleaning up a project after migration

After you import a WebSphere Business Integration Workbench organization into a new Business Modeler project, you need to ensure that the new model is complete.

__ 1. Validate the model using the **Errors view** to see if there are any consistency errors in the model. Correct any errors that you find.

__ 2. Add stop nodes to the processes, subprocesses, and loops in the model. Stop nodes are not added during import, but are required in order for simulations to work correctly. A stop node marks the end of a process, subprocess, or loop. When a process flow reaches a stop node, the process immediately terminates, even if there are other flows running at the same time.

Note: The stop node used in Business Modeler is significantly different from the stop object used in WebSphere Business Integration Workbench. The equivalent to the WebSphere Business Integration Workbench stop object is the end node.

__ 3. Re-enter any information that was mapped into comments instead of directly to process elements. For example, information stored in decision expressions and phi mapping expressions is converted into comments, and must be manually re-entered.

__ 4. Rename any elements that have names that are too long to display easily. Even though this step is does not affect the function of the model, it improves ease of use.

__ 5. If required, rearrange the locations of the elements in the model diagrams so that the diagrams are easy to interpret.

__ 6. Review the project to make sure that it still accurately models the processes. Correct any inaccuracies that you find.

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__ 7. Validate the model again using the **Errors** view in case consistency errors were introduced during the review. Correct any errors that you find.

The Workbench organization is now fully migrated into a WebSphere Business Modeler project.

For more details, refer to the **Migration reference** in the Modeler Help System.

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Appendix C. Migrating WebSphere Business Modeler from V5 to V6

What this exercise is about

This appendix describes how to migrate version 5 projects and workspaces to WebSphere Business Modeler Advanced Version 6.

What you should be able to do

At the end of the lab, you should be able to:

- Prepare a project for migration
- Migrate version 5 projects
- Recover from a failed migration

Requirements

Sample V5 model to be migrated.

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Exercise instructions

Part 1: Preparing to migrate from version 5

Before you migrate your models to IBM WebSphere Business Modeler Version 6, you should prepare them to ensure a smooth migration.

You can carry out the preparation either before or after you install IBM WebSphere Business Modeler Version 6 on your computer.

To prepare your models for migration, complete the following steps:

__ 1. If you have any version 5 projects that you had exported, and that you want to migrate at this time, import them into your version 5 workspace.
Importing these projects before you migrate your product allows you to perform a final validation of them before migration. It also improves the efficiency of the model migration because you are able to migrate an entire workspace at one time.

__ 2. Validate the models in your workspace by using the Error view.
Correct any errors that you find in the model.

__ 3. After you have validated all your models, close all the open editors.

__ 4. If there are any version 5 projects that you want to archive, export them using the WebSphere Business Integration Modeler V5 Project export option.
When you migrate your workspace, all of its original contents are backed up automatically, but they can be difficult to access after migration completes. As a result, if there are specific projects that are of particular interest to you, it is a good idea to export them before you migrate the product.

__ 5. Ensure that you have enough space on your drive to carry out the migration. You will need enough space to install the new version of the product and enough space for the migration process to create a backup of your workspace. If there is insufficient disk space to back up the workspace, you will be unable to migrate it.

You can now migrate your projects.

Part 2: Migrate version 5 projects

After you install WebSphere Business Modeler Version 6, you can migrate projects created in version 5.

There are two possible ways to migrate local project files:

1) You can migrate an entire workspace from a previous version of IBM WebSphere Business Modeler. This migration occurs automatically when you specify a workspace that was used with version 5.

2) You can import files that were created using version 5. This includes checking projects out of a version 5 repository if you were using the project versioning capabilities of the product.

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Migrating projects stored in your workspace

The first time WebSphere Business Modeler accesses a workspace containing version 5 projects, it automatically migrates the entire workspace for use with WebSphere Business Modeler Version 6.

Once you have installed IBM WebSphere Business Modeler Version 6.0, you can use it to migrate any workspace that stored projects created using version 5.

After a workspace has been migrated to WebSphere Business Modeler Version 6, it cannot be accessed again using version 5. As well, any projects that are shared using a repository have their connection to that repository broken. A backup of the original workspace is created during migration in case you need to have access to the original models at a later date.

__ 1. If you have installed WebSphere Business Modeler as a stand-alone application, run it. If you have installed WebSphere Business Modeler, as a set of plug-ins for WebSphere Integration Developer or one of the supported Rational products, run that product.

__ 2. When you are asked to specify a workspace for your work session, specify the version 5 workspace that you want to migrate and click **OK**.
After a short time, the Migrate Workspace window opens.

__ 3. Specify a location to back up the current workspace.
Ensure that the location you specify has enough space to store the backup copy. Otherwise, the migration will fail. However, the original workspace will not be affected if the migration fails due to an inability to create a backup.

__ 4. If you are working on an English system and want to save space, select **Backup** as compressed file.

Caution:

If any of the paths in your workspace contain any non-English characters, including accented English characters, do not use the compressed file option. Non-English characters currently cause problems when extracting the backup. If you are in doubt about whether your workspace paths contain any non-English characters, be sure to use only the default backup option.

After the migration is complete, you can manually compress the backup using the program of your choice.

__ 5. Click **OK**. When the migration is complete, the program restarts so that it can access the newly migrated workspace.

__ 6. Use the error view to ensure that no errors were introduced to your models during migration. Correct any errors that you find.

Your workspace, and all the projects it contained, are now migrated for use with IBM WebSphere Business Modeler Version 6.0. Any of the projects that were associated with a

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repository now have that association broken. If the migration of any of the projects in the workspace failed, a message indicates exactly which projects are affected.

If you have another workspace that you want to migrate, you can restart the program and migrate the new workspace.

If you run WebSphere Business Modeler again after migrating, be sure that you specify a version 5 workspace for it, such as the backup workspace created by the migration process.

Importing projects exported from version 5

WebSphere Business Modeler can import projects from compressed files created using the version 5 export function.

Complete the following steps:

__ 1. Use the **Import wizard** to import your version 5 projects.

__ 2. In the Project Tree, right-click and select **Import**.
The Import wizard opens.

__ 3. Select **WebSphere Business Modeler project** and click **Next**.

__ 4. Click **Browse**.
The **Browse for Folder** window opens.

__ 5. Navigate to the folder that contains the compressed file you want to import. Select it and click **OK**.

__ 6. In the **Files** list, select the compressed file containing the project that you want to migrate.

__ 7. In the **Target project** field, select an existing project from the drop-down list or click **New** to create a new project.
Regardless of the option you choose, the selected target project must be empty. The Import wizard only allows you to select empty projects.

__ 8. If you do not want to import the simulation snapshots from your version 5 project, clear the Include simulation snapshots option.
Choosing not to import your simulation snapshots significantly increases the speed at which the migration completes.

__ 9. If you want the elements you are importing to replace elements with the same name in the target project, select **Overwrite existing elements**.
Otherwise, you will be warned any time an element is about to be overwritten. Because you are importing into a new project, it is recommended that you select this option in order to speed up the migration.

__ 10. When you have finished specifying the import options, click **Finish**.
A window opens when the import process is complete.

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__ 11. If any errors or warnings occurred during the import process, a window appears to notify you. Click **Details** to review the errors.

__ 12. Click **OK**.

__ 13. Use the error view to help you correct any errors that existed in the project before migration, or that were introduced during migration.

If you have other compressed files that you also want to import, repeat this process for each file.

Migrating projects stored in a team repository

WebSphere Business Modeler automatically migrates version 5 projects when you check them out from a CVS (Concurrent Versions System) server. After the migration, you can check the file into a new CVS or Rational ClearCase VOB (versioned object base) repository.

Before you can migrate a project that is stored in a repository, you must have added the repository to the Repository view. Additionally, ensure that none of your existing version 6 projects have the same name as the project you want to migrate. If any of your existing projects match the name of the project in the repository, you will not be able to connect to the version 5 project to migrate it.

When you migrate a version 5 project that is stored in a repository, what you are actually doing is creating a copy of the project in your workspace, and migrating that copy. The original version 5 project is not affected. To migrate a version 5 project stored in a repository location, complete the following steps:

__ 1. In the Project Tree, right-click anywhere and select **Team —> Check Out Project** from the context menu.
The **Check Out Project** wizard opens.

__ 2. Expand the CVS node to show its repositories.

__ 3. Expand the repository that contains the project.

__ 4. Select the project you want to migrate.

__ 5. Click **Finish**.
A dialog box opens and asks you to confirm that you want to migrate the project.

__ 6. Click **Yes** to confirm that you want to migrate the project.
A local copy of the project is created and migrated for use with version 6.

__ 7. Use the error view to help you correct any errors that existed in the project before migration, or that were introduced during migration.

A migrated copy of the project is now in the workspace on your local machine.

Note that there is no connection between the migrated project and the project in the repository. In addition, you cannot add a connection because the projects were made by

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different versions of WebSphere Business Modeler. If you want to continue sharing the migrated project, rename it and share it again using a new repository.

> **Note:** Even though it is possible to rename the project and share it using the same repository, it is recommended that you use separate repositories for your version 5 and version 6 models.

Lower versions of WebSphere Business Modeler cannot access models that have been shared by using a higher version. As a result the version 6 project can only be shared with people using WebSphere Business Modeler Version 6.

Part 3: Recovering from a failed migration

If the migration of a project runs into problems, you can recover your projects into IBM WebSphere Business Modeler Version 5.

To recover the files, you need to have a copy of WebSphere Business Integration Modeler Version 5 installed on your computer. The precise version number that you have installed should be the same as was used to edit the files you are recovering.

Recovering files that have been exported from version 5

To recover files that have been exported from WebSphere Business Integration Modeler Version 5, import the compressed file into a copy of version 5 following the instructions in the version 5 documentation.

Recovering files that have been stored in a repository

Files stored in a repository for use with WebSphere Business Integration Modeler Version 5 are still available for version 5 users even after migration. You can continue to access the files with a copy of the version 5 product as long as the repository continues to exist.

Recovering files from a failed workspace migration

A failure during workspace migration can occur either before the workspace is backed up, or after the workspace is backed up. When the failure happens before the workspace is backed up, it usually indicates that there was not enough disk space available to make the backup. You can retry the migration selecting a different backup location.

If the failure occurs after the workspace was backed up, then you need to restore the workspace before proceeding.

It is good practice to restore the entire workspace. This is especially important if you have been using Application Developer Integration Edition. To recover your files from the backup, and to restore the original workspace for use, complete the following steps:

__ 1. If the backup workspace is stored in a compressed file, extract it to an empty directory.

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__ 2. If the backup workspace is not stored in a compressed file, copy it, and all its contents, into an empty directory.

Copying is preferred to moving in order to preserve the backup for possible future use.

__ 3. Run WebSphere Business Integration Modeler Version 5.

__ 4. When you are asked to specify a workspace for your work session, specify the version 5 workspace that you have just created from your back up and click **OK**. WebSphere Business Integration Modeler starts and opens the workspace.

The workspace has now been recovered.

__ 5. To attempt the migration again, try to migrate your projects one at a time, instead of migrating the entire workspace.

__ 6. Export each version 5 project into its own file using the WebSphere Business Modeler Export wizard, and then follow the instructions in Importing projects exported from version 5 to import them into a copy of WebSphere Business Modeler Version 6.

For more details, refer to the **Migration reference** in the Modeler Help System.

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Appendix D. Preparing a model for export to WebSphere Process Server

What this exercise is about

This lab covers the export of process models.

What you should be able to do

At the end of the lab, you should be able to:

- Prepare a model for export to WebSphere Process Server
- Validate the process model

Requirements

Previous labs should be completed successfully.

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Exercise instructions

In this exercise, the **Credit Request To Be** process will be prepared for WebSphere Process Server export. A copy of **Credit Request To Be** will be created and named **Credit Request for WPS** for the purposes of exporting. No changes should be made to the original **Credit Request To Be** model.

The process will need to be updated according to the validation errors.

Part 1: Importing a project

__ 1. Launch Modeler by clicking **Start —> Programs —> WebSphere Business Modeler —> WebSphere Business Modeler**.

__ 2. Enter a new workspace: `C:\ClassWorkspaces\ModelerExportWorkspace`

__ 3. At the **Quickstart wizard** dialog box, click **Cancel**.

__ 4. Close the **Welcome** pane.

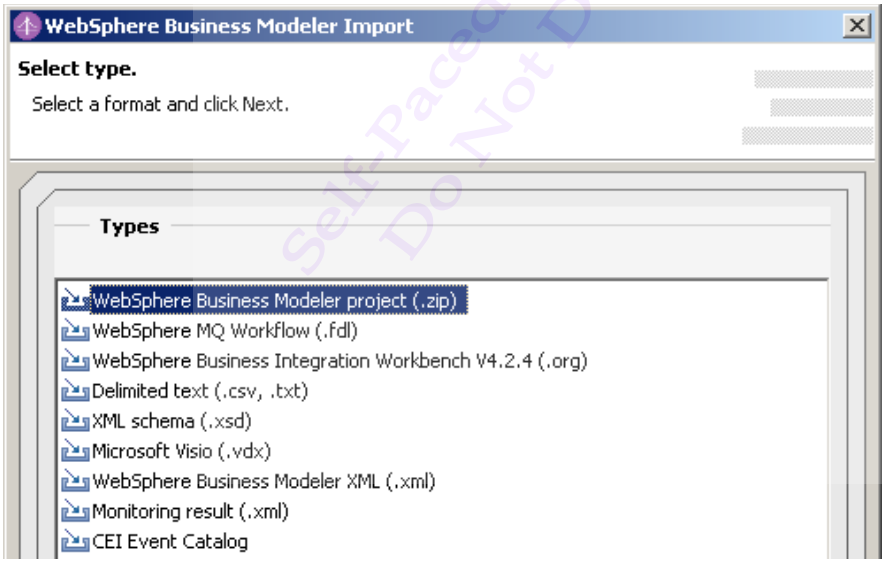
__ 5. Switch to **4-pane layout**.

__ 6. In the Project Tree, right-click and select **Import**.



The WebSphere Business Modeler Import window is displayed.

__ 7. Select **WebSphere Business Modeler project (.zip)** and click **Next**.



__ 8. Under **Source directory**, enter the **Student Files** path location.

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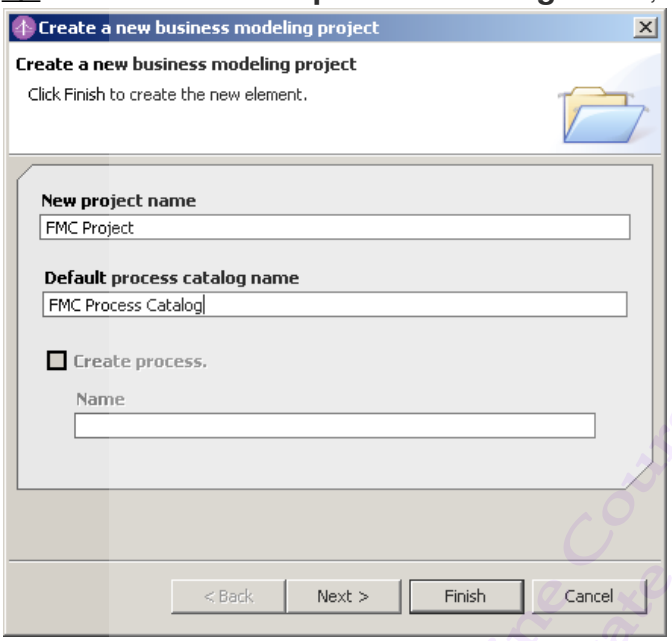
For students enrolled in self-paced courses, the **Student Files** directory is located in the.zip file that you downloaded from Learning Space.

__ 9. Select **FMC Project for WPS Export.zip** under **Files**.

__ 10. Next to the **Target project** field, click **New**.

__ 11. Enter `FMC Project` as **New project name**.

__ 12. Under **Default process catalog name**, enter: `FMC Process Catalog`



__ 13. Click **Finish**.

__ 14. Once project files have been created, verify that **FMC Project** is displayed in the **Target project field** in the **Import** window.

__ 15. Select the **Overwrite existing elements** check box.

__ 16. Click **Finish**.

__ 17. Click **OK** when import is finished.

__ 18. From the Project Tree, under **FMC Project —> FMC Process Catalog**, right-click **Credit Request To Be** and select **Copy**.

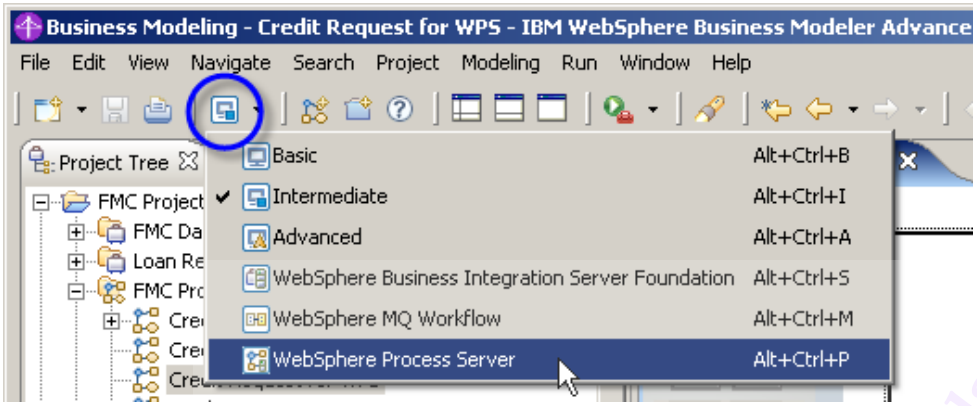
__ 19. Right-click **FMC Process Catalog**, and select **Paste**.

__ 20. Rename `Copy of Credit Request To Be` to `Credit Request for WPS`

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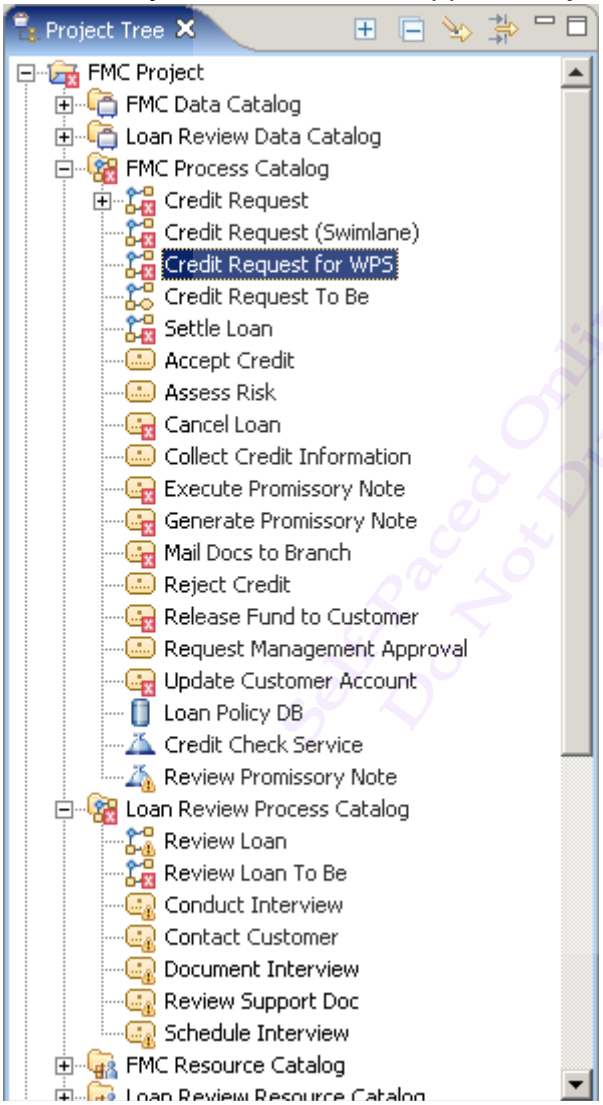
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__ 21. Switch the modeling mode to **WebSphere Process Server**.


Business Modeling - Credit Request for WPS - IBM WebSphere Business Modeler Advance
File Edit View Navigate Search Project Modeling Run Window Help
Project Tree
Basic Alt+Ctrl+B
Intermediate Alt+Ctrl+I
Advanced Alt+Ctrl+A
WebSphere Business Integration Server Foundation Alt+Ctrl+S
WebSphere MQ Workflow Alt+Ctrl+M
WebSphere Process Server Alt+Ctrl+P

Part 2: Reviewing error messages

Red **X**'s are displayed on some of the elements in the Project Tree. These elements contain objects that are not supported by WebSphere Process Server.

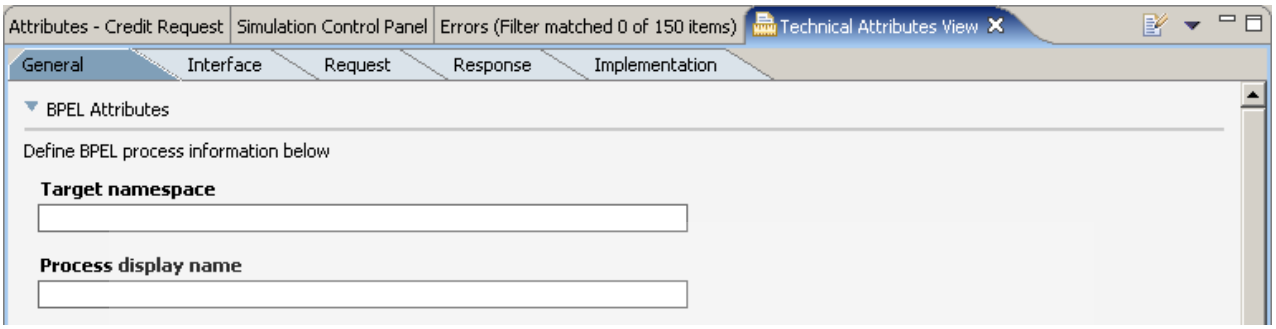


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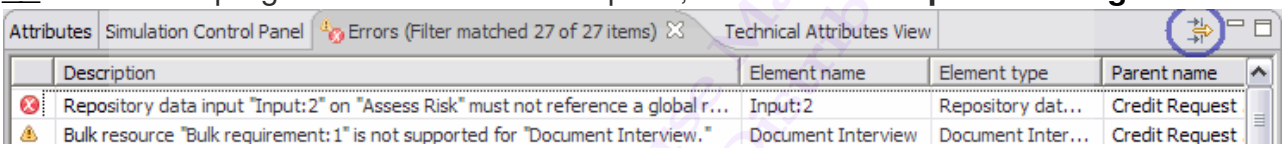
__ 22. Note that a new tab has appeared in the lower right pane: **Technical Attributes view**.



__ 23. Click the **Errors** tab.

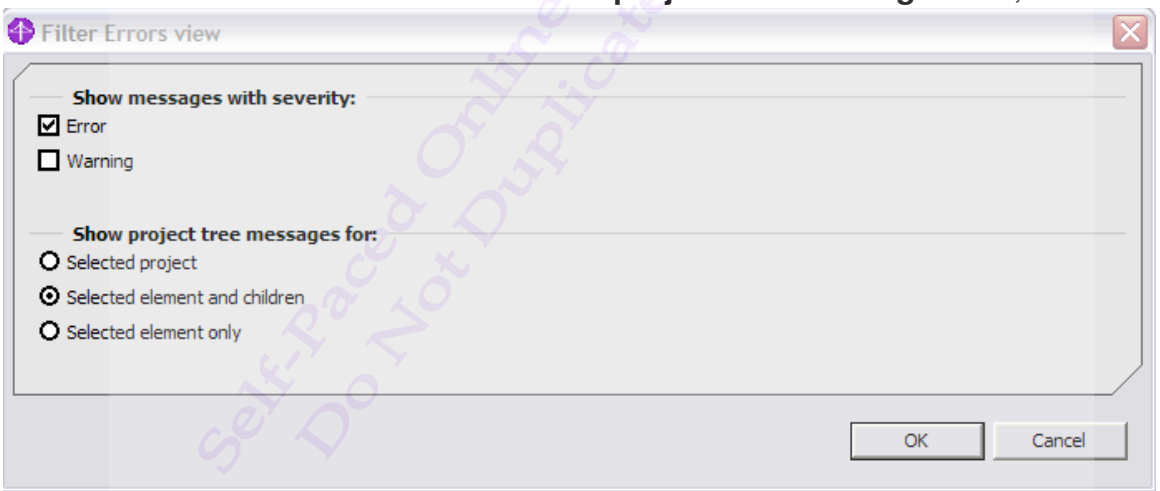
__ 24. In the Project Tree, select **FMC Project**, and review the errors and warning messages in the **Errors** pane.

__ 25. In the top-right corner of the **Errors** pane, click the **Filter options dialog** button.



The **Filter Errors view** window is displayed.

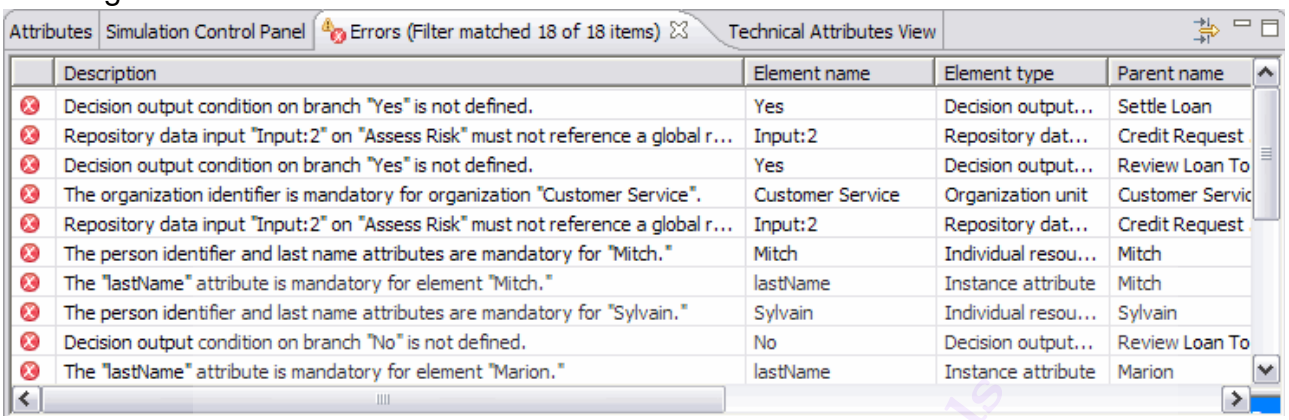
__ 26. Clear the check box next to **Warning**, and click the check box next to **Selected element and children** under **Show project tree messages for:**, and click **OK**.



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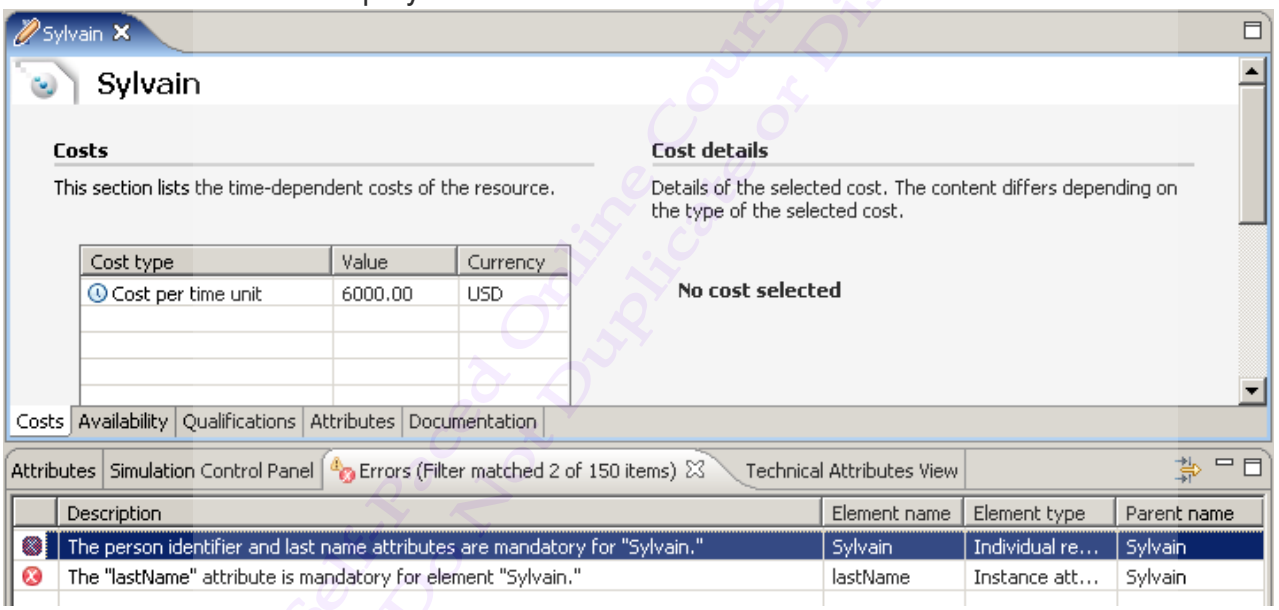
Warnings have been removed from the **Errors** view:



Part 3: Fixing errors

__ 1. To remove the error referring to the Resource named **Sylvain**, either double-click the error in the **Error** pane, or double-click **Sylvain** under **FMC Resource Catalog** in the Project Tree.

The resource editor is displayed.



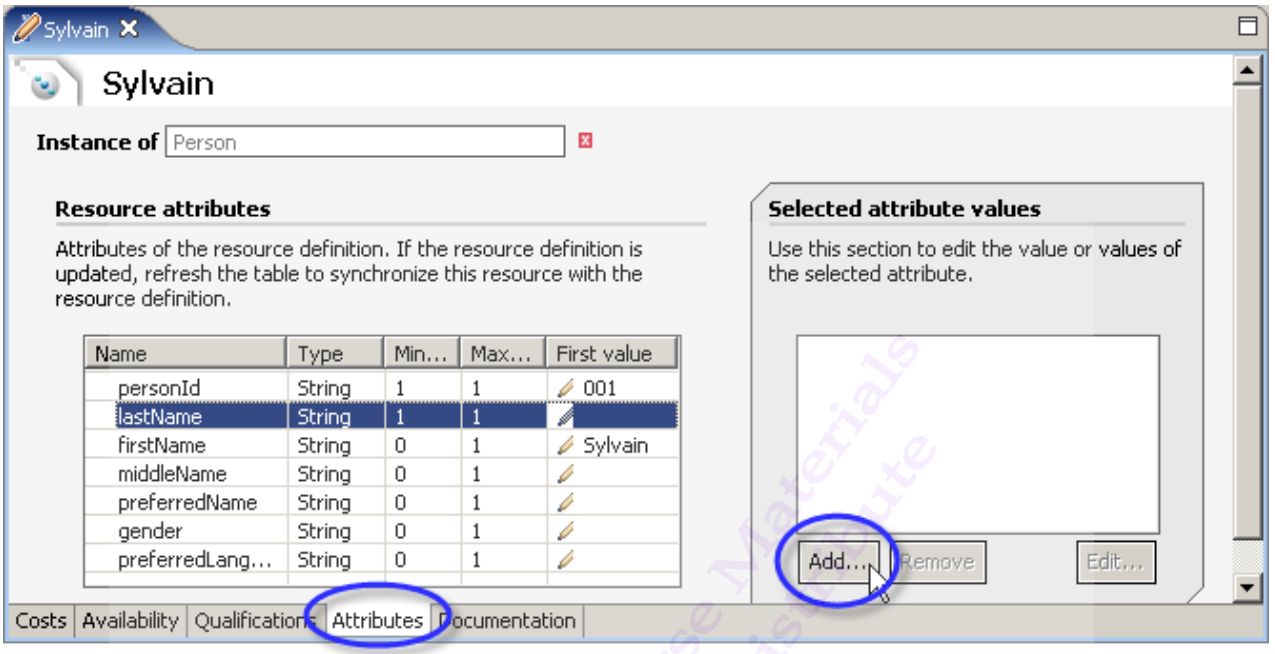
Note that only two errors are shown in the **Errors** pane. These errors are specific to the resource **Sylvain**.

__ 2. At the bottom of the resource editor, click the **Attributes** tab.

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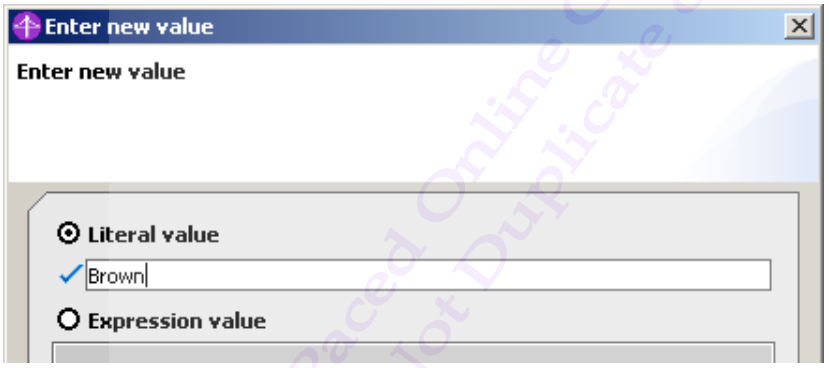
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__ 3. In the **Resource attributes** table, select the **lastName** row and click the **Add** button under **Selected attribute values**.



The **Enter new value** window appears.

__ 4. Under **Literal value**, enter `Brown` and click **OK**.

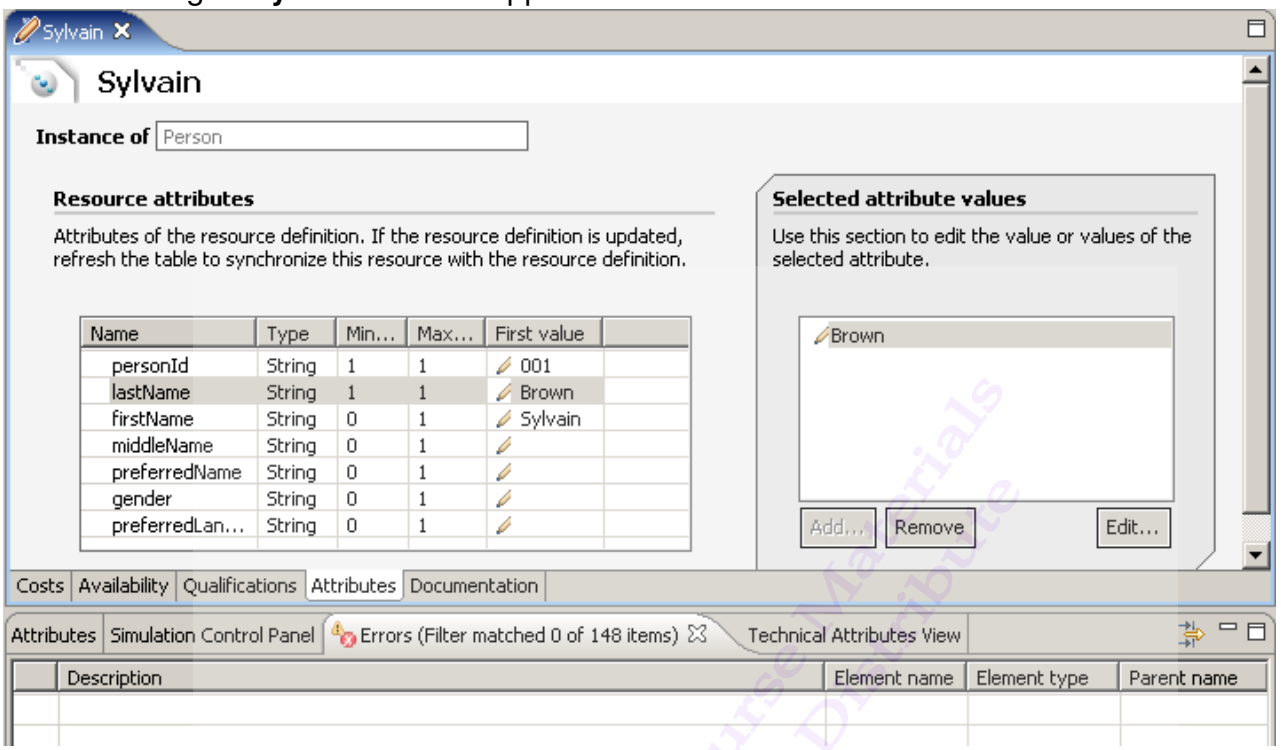


__ 5. Save changes made to the resource editor for **Sylvain** (Ctrl+S).

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Errors relating to **Sylvain** have disappeared.


Sylvain
Sylvain
Instance of Person
Resource attributes
Attributes of the resource definition. If the resource definition is updated, refresh the table to synchronize this resource with the resource definition.
Name Type Min... Max... First value
personId String 1 1 001
lastName String 1 1 Brown
firstName String 0 1 Sylvain
middleName String 0 1
preferredName String 0 1
gender String 0 1
preferredLan... String 0 1
Selected attribute values
Use this section to edit the value or values of the selected attribute.
Brown
Add... Remove Edit...
Costs Availability Qualifications Attributes Documentation
Attributes Simulation Control Panel
Errors (Filter matched 0 of 148 items)
Technical Attributes View
Description Element name Element type Parent name

__ 6. In the Project Tree, select **FMC Project** in order for errors to display in the **Errors** pane.
The resources **Mitch** and **Marion** need to be edited to assign last names.

__ 7. Repeat the steps outlined above in this section to assign last names to **Mitch** and **Marion:**

Mitch: `Mitch Johnson`

Marion: `Marion Smith`

__ 8. Save and close the three resource editors.

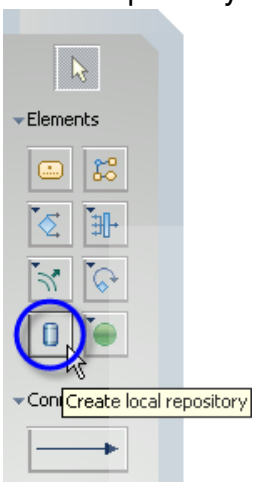
__ 9. View the remaining errors in the **Errors** pane.

__ 10. To fix the error referring to the repository, open the **Credit Request for WPS** process and delete the repository named **Loan Policy DB**.

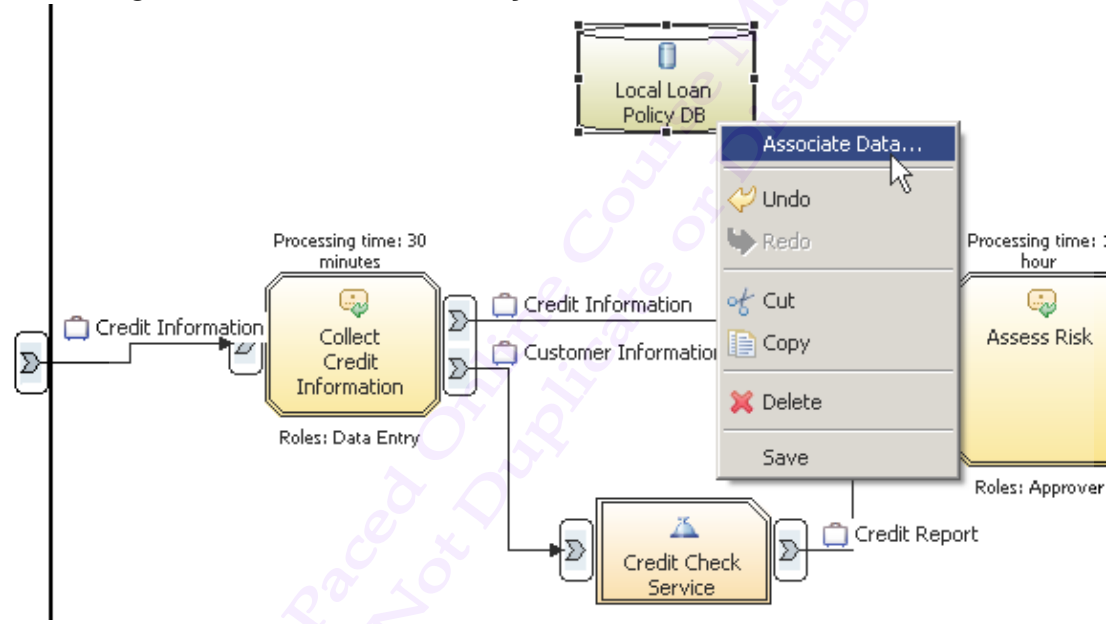
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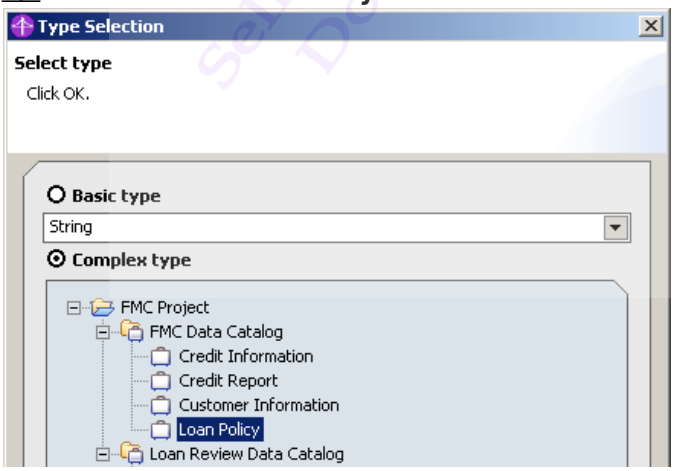
__ 11. Replace it with a local repository named **Local Loan Policy DB**. Click the local repository icon from the palette.



__ 12. Right-click **Local Loan Policy DB**, and select **Associate data**.



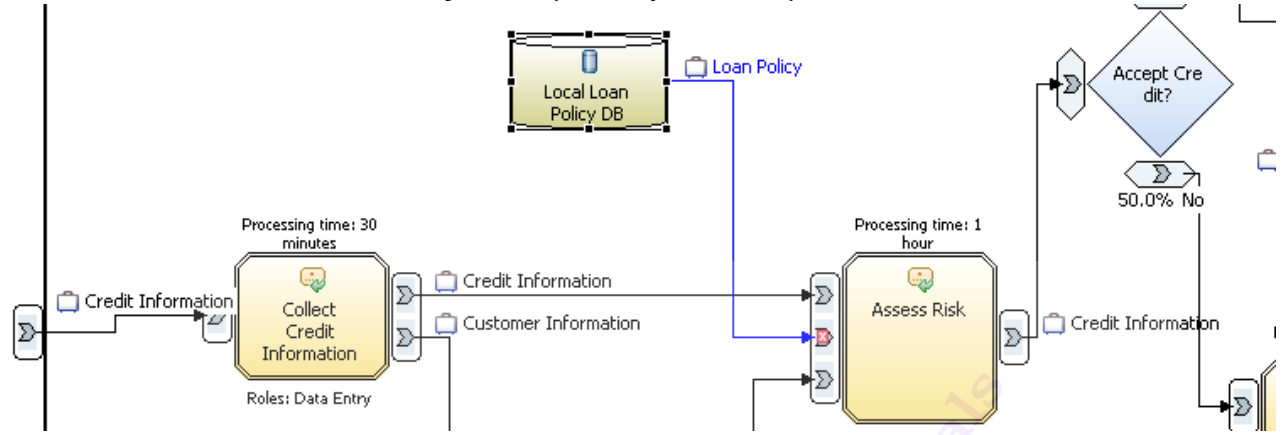
__ 13. Select **Loan Policy** and click **OK**.



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__ 14. Connect the **Loan Policy DB** repository to the input of the **Assess Risk** task.



__ 15. Save your work (Ctrl+S).

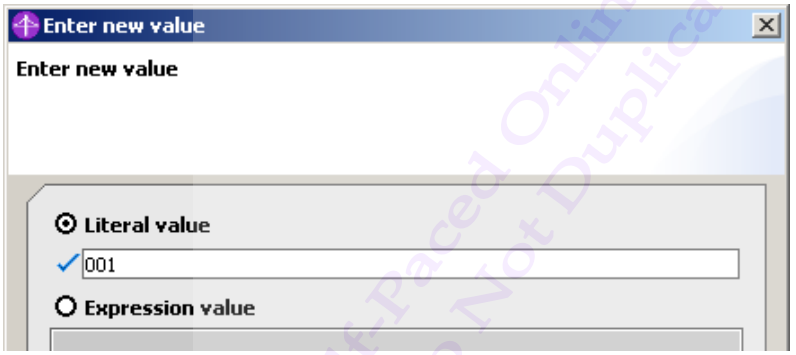
The red **X** disappears from the input icon of the Assess Risk task.

__ 16. To remove the error referring to organizations, either double-click the **Branch** organization under FMC Organization catalog in the Project Tree or double-click the error for **Branch**.

The **Branch** organization editor opens.

__ 17. In the **Organization Attributes** table, with the **organizationID** row selected, click the **Add** button under **Attribute values**.

__ 18. Under **Literal value**, enter `001` and click **OK**.



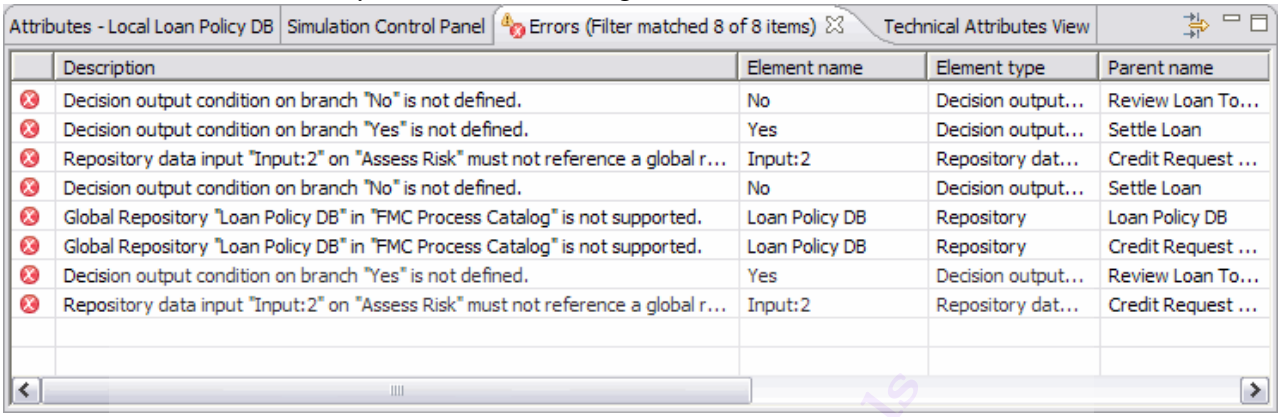
__ 19. Repeat the steps above to assign Organization IDs to `Customer Service` and **Underwriting:**
Customer Service: `002`
Underwriting: `003`

__ 20. Save and close the three organization editors.

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__ 21. Check the **Errors** pane. The following errors remain:


Attributes - Local Loan Policy DB
Simulation Control Panel
Errors (Filter matched 8 of 8 items)
Technical Attributes View

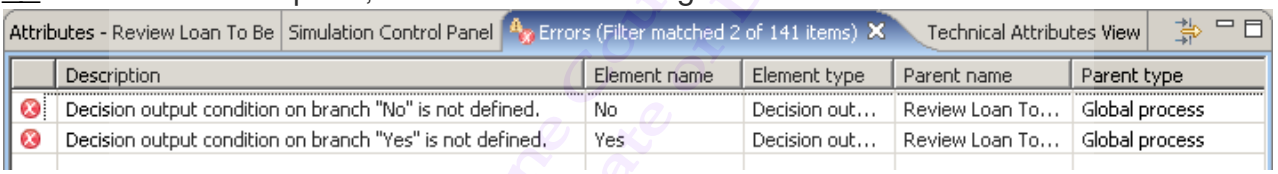
Description	Element name	Element type	Parent name
Decision output condition on branch "No" is not defined.	No	Decision output...	Review Loan To...
Decision output condition on branch "Yes" is not defined.	Yes	Decision output...	Settle Loan
Repository data input "Input:2" on "Assess Risk" must not reference a global r...	Input:2	Repository dat...	Credit Request ...
Decision output condition on branch "No" is not defined.	No	Decision output...	Settle Loan
Global Repository "Loan Policy DB" in "FMC Process Catalog" is not supported.	Loan Policy DB	Repository	Loan Policy DB
Global Repository "Loan Policy DB" in "FMC Process Catalog" is not supported.	Loan Policy DB	Repository	Credit Request ...
Decision output condition on branch "Yes" is not defined.	Yes	Decision output...	Review Loan To...
Repository data input "Input:2" on "Assess Risk" must not reference a global r...	Input:2	Repository dat...	Credit Request ...

Part 4: Fixing errors on the subprocess

__ 1. From the **Credit Request for WPS** process diagram, right-click the **Review Loan To Be** subprocess and select **Launch Global Process Editor**.

The **Review Loan To Be** process diagram is displayed.

__ 2. In the **Errors** pane, note the error messages.



Description	Element name	Element type	Parent name	Parent type
Decision output condition on branch "No" is not defined.	No	Decision out...	Review Loan To...	Global process
Decision output condition on branch "Yes" is not defined.	Yes	Decision out...	Review Loan To...	Global process

To correct these errors, the decision output conditions need to be defined for **Can customer provide support doc?** The output conditions are based on the information in the loan application.

__ 3. Create an attribute called `Support Doc` in the **Loan Application** business item:

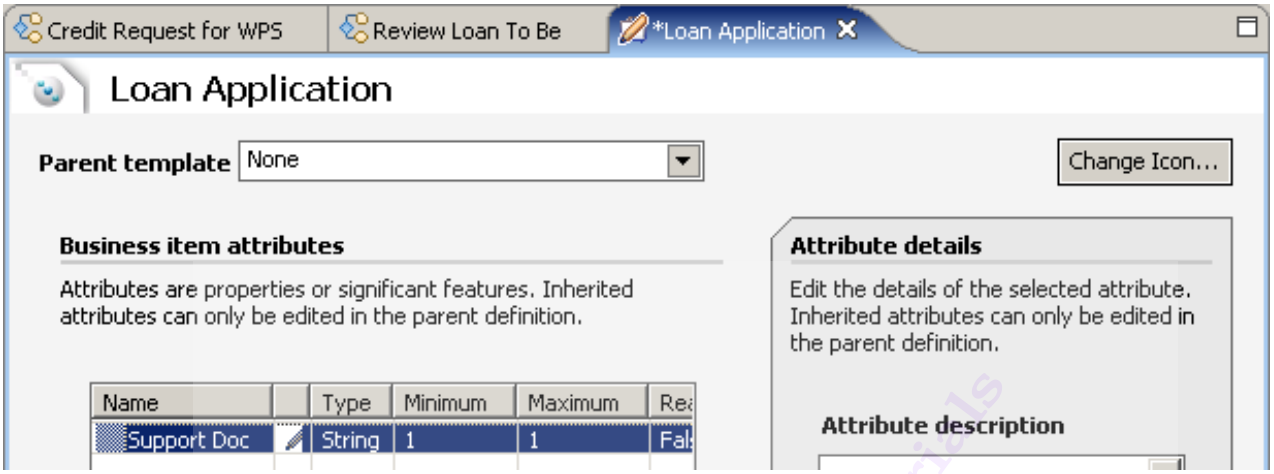
From the Project Tree, right-click **Loan Review Data Catalog —> Loan Application** and select **Open**.

The **Loan Application** business item editor is displayed.

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__ 4. Click the **Add** button to add a new attribute. Rename this attribute `Support Doc`.



__ 5. Save and close the editor.

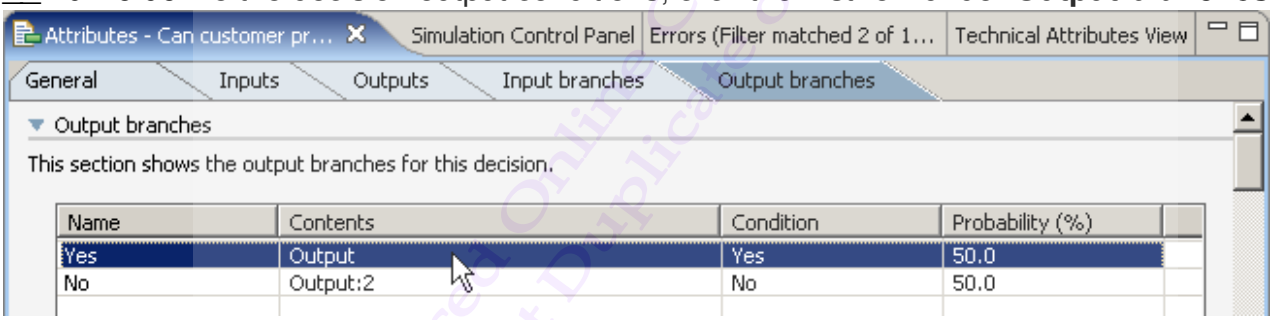
__ 6. Return to the **Review Loan To Be** process editor.

__ 7. Select the **Can customer provide doc?** decision in the diagram.

__ 8. Click the **Attributes** pane.

__ 9. Select the **Output branches** tab.

__ 10. To define the decision output conditions, click the first row under **Output branches**.



__ 11. Scroll to the bottom and click the **Edit** button under the **Expression** field.

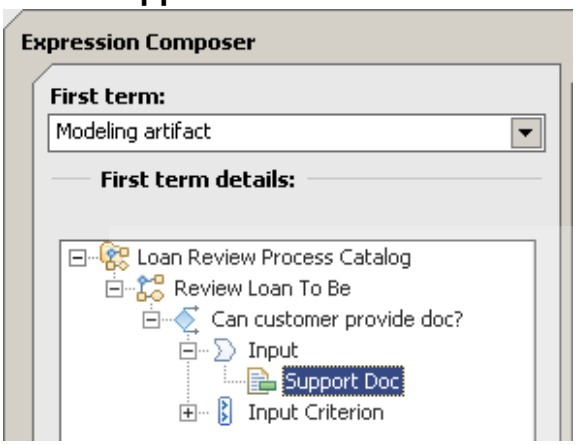
The **Expression Builder** is displayed.

__ 12. Under **Expression Composer**, verify that the **Modeling** artifact is selected as the **First term**.

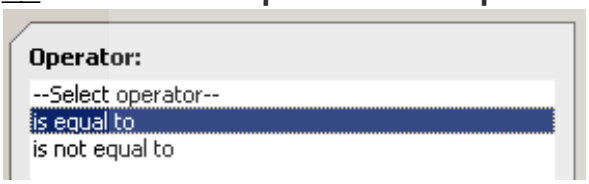
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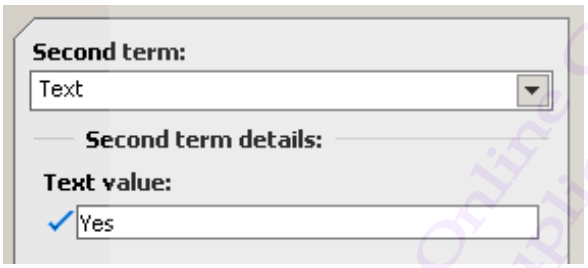
__ 13. Under **First term details**, expand the selection of **Modeling** artifact to select **Support Doc** as follows:



__ 14. Select **is equal to** under **Operator**.



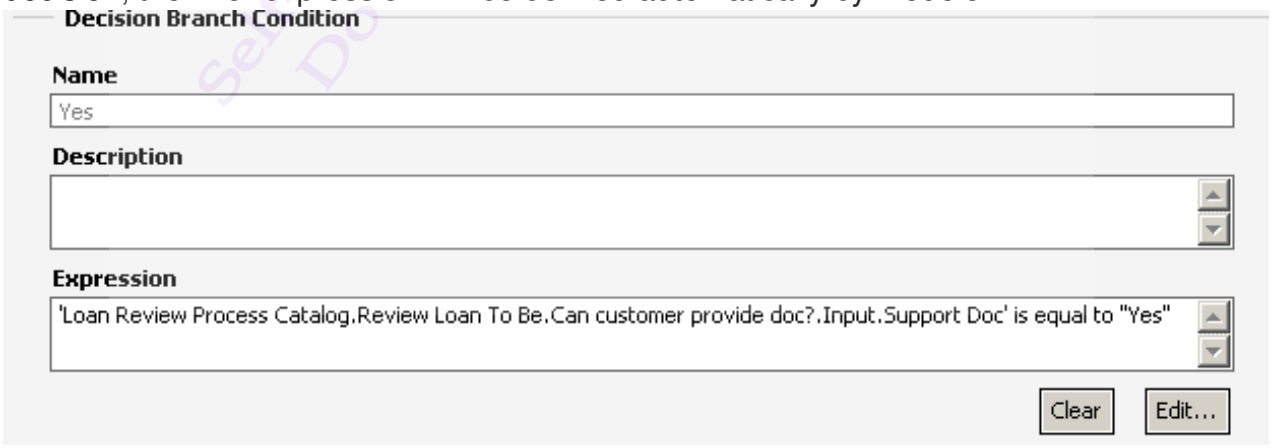
__ 15. Select **Text** as **Second term** and enter `Yes` as **Text value**.



__ 16. Click **Apply**.

__ 17. Click **OK**.

The following expression is displayed in the **Attributes** pane, and since this is a simple decision, the “No” expression will be defined automatically by Modeler.



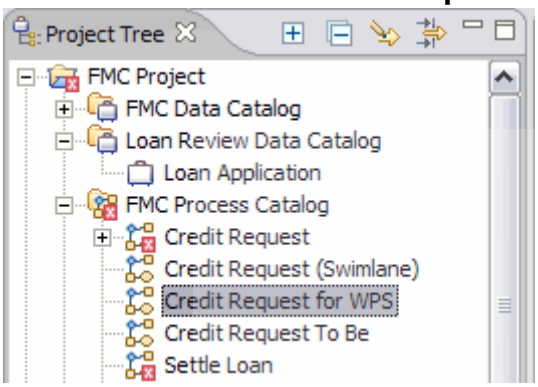
__ 18. Save your work (Ctrl+S).

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__ 19. Return to the **Errors** pane and click the **FMC Project** in the Project Tree to make sure all errors are displayed.

__ 20. The two errors for the **Review Loan To Be** process have disappeared. Also, the red **X** marked on **Credit Request for WPS** in the Project Tree has disappeared.



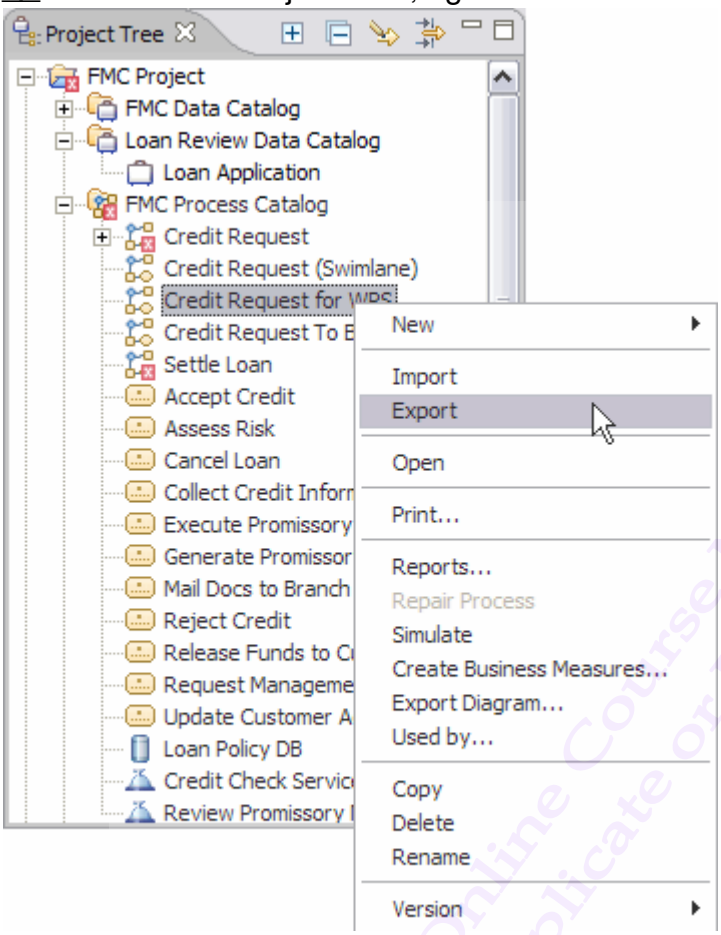
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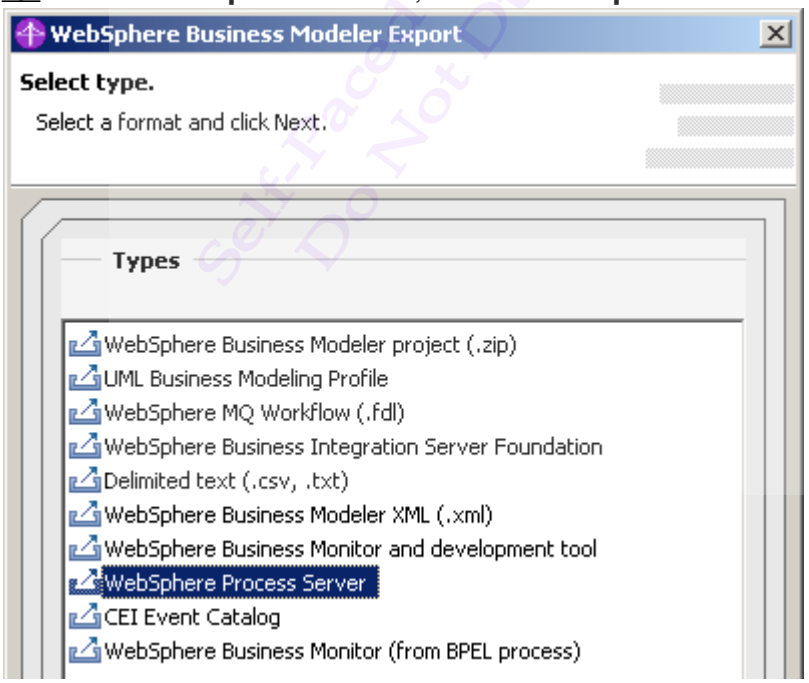
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Part 5: Exporting to WebSphere Process Server

__ 1. From the Project Tree, right-click **Credit Request for WPS** and select **Export**.



__ 2. In the **Export** window, select **WebSphere Process Server** under **Types**.


WebSphere Business Modeler Export
Select type.
Select a format and click Next.
Types
WebSphere Business Modeler project (.zip)
UML Business Modeling Profile
WebSphere MQ Workflow (.fdl)
WebSphere Business Integration Server Foundation
Delimited text (.csv, .txt)
WebSphere Business Modeler XML (.xml)
WebSphere Business Monitor and development tool
WebSphere Process Server
CEI Event Catalog
WebSphere Business Monitor (from BPEL process)

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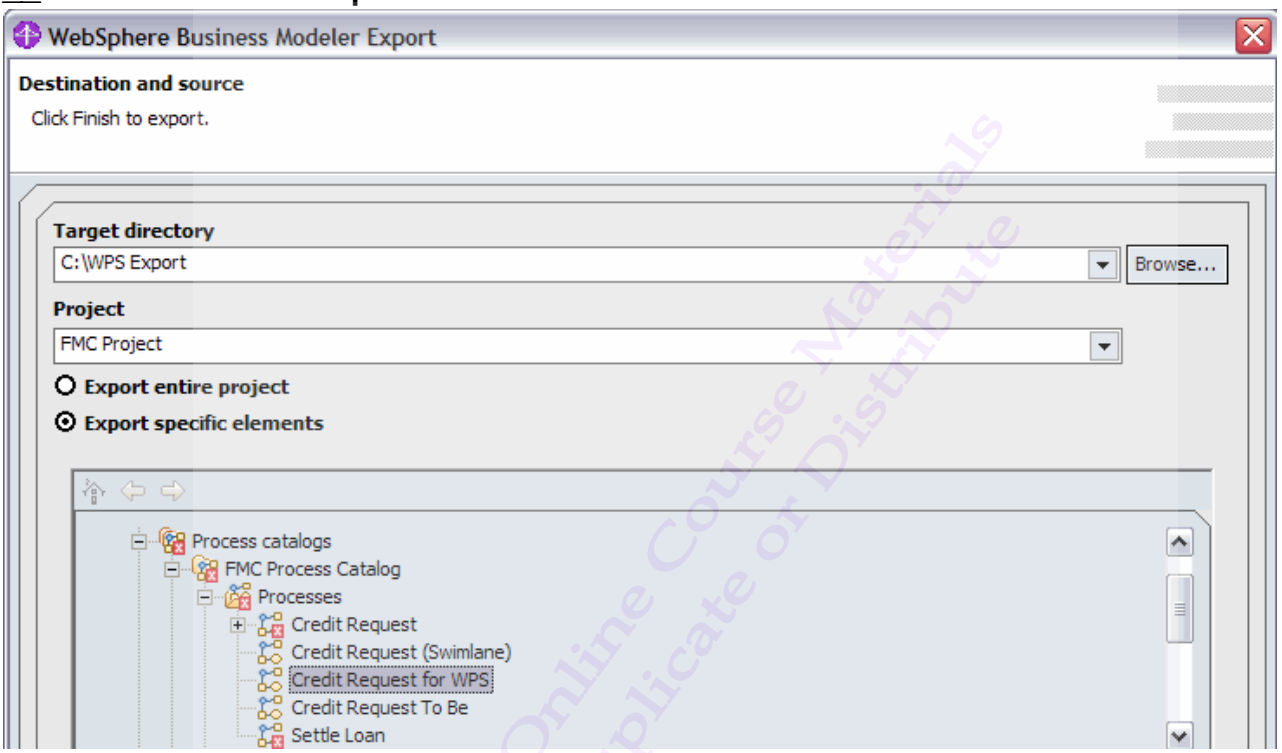
__ 3. Click **Next**.

__ 4. In the `C:\` directory, create a new folder named `WPS Export` and select this as the **Target directory**.

__ 5. Select **FMC Project** as the **Project**.

__ 6. Select the **Export specific elements** option.

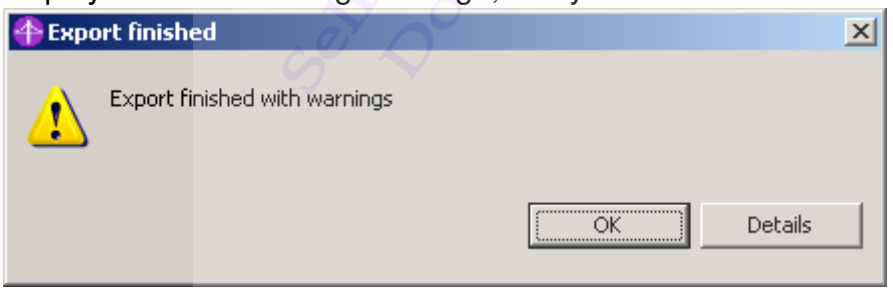
__ 7. Select **Credit Request for WPS** from the list.



__ 8. Click **Overwrite files**.

__ 9. Click **Finish**.

It will take a few minutes to export these files, and the **Export finished** dialog box will be displayed with a warning message, if any.

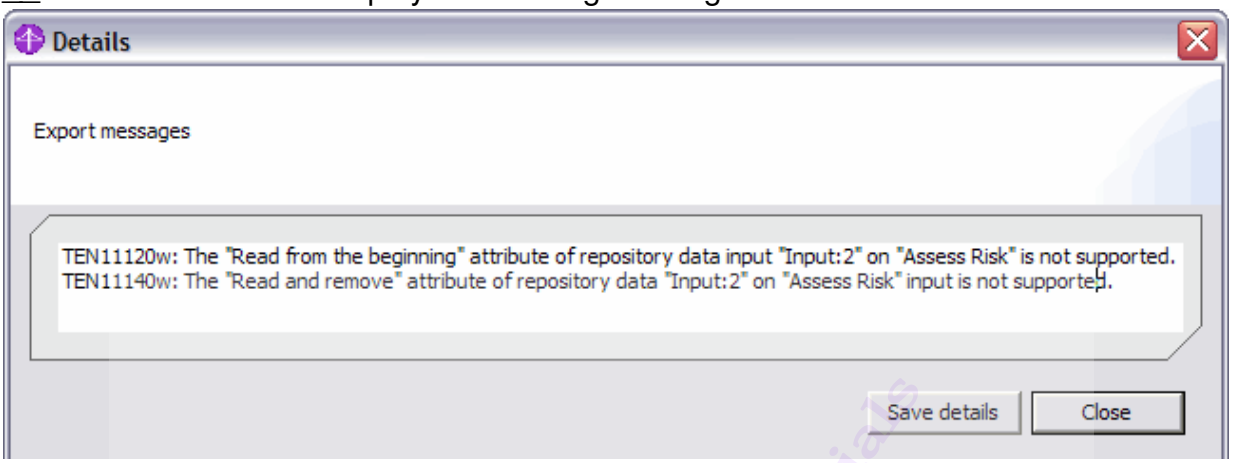


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__ 10. Click **Details** to display the warning messages.


Details
Export messages
TEN11120w: The "Read from the beginning" attribute of repository data input "Input:2" on "Assess Risk" is not supported.
TEN11140w: The "Read and remove" attribute of repository data "Input:2" on "Assess Risk" input is not supported.
Save details
Close

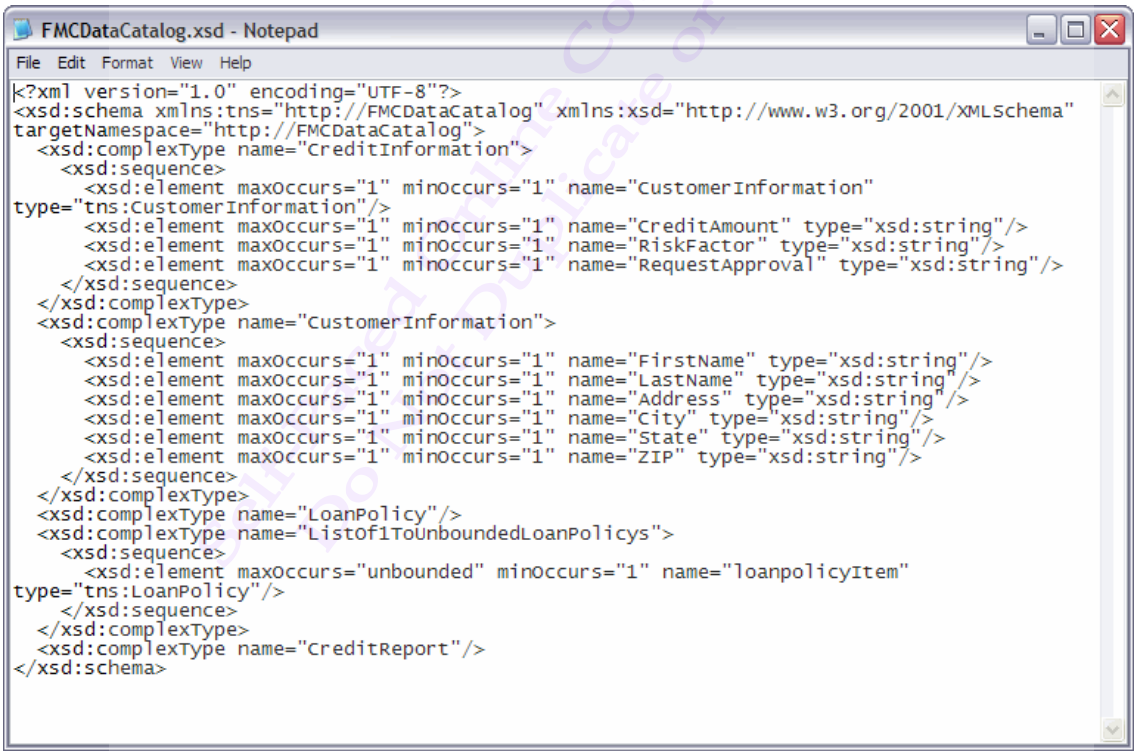
__ 11. Click **Close**.

__ 12. Click **OK**.

Part 6: Reviewing exported files

Once you export the model, use Windows Explorer and Notepad to view the files:

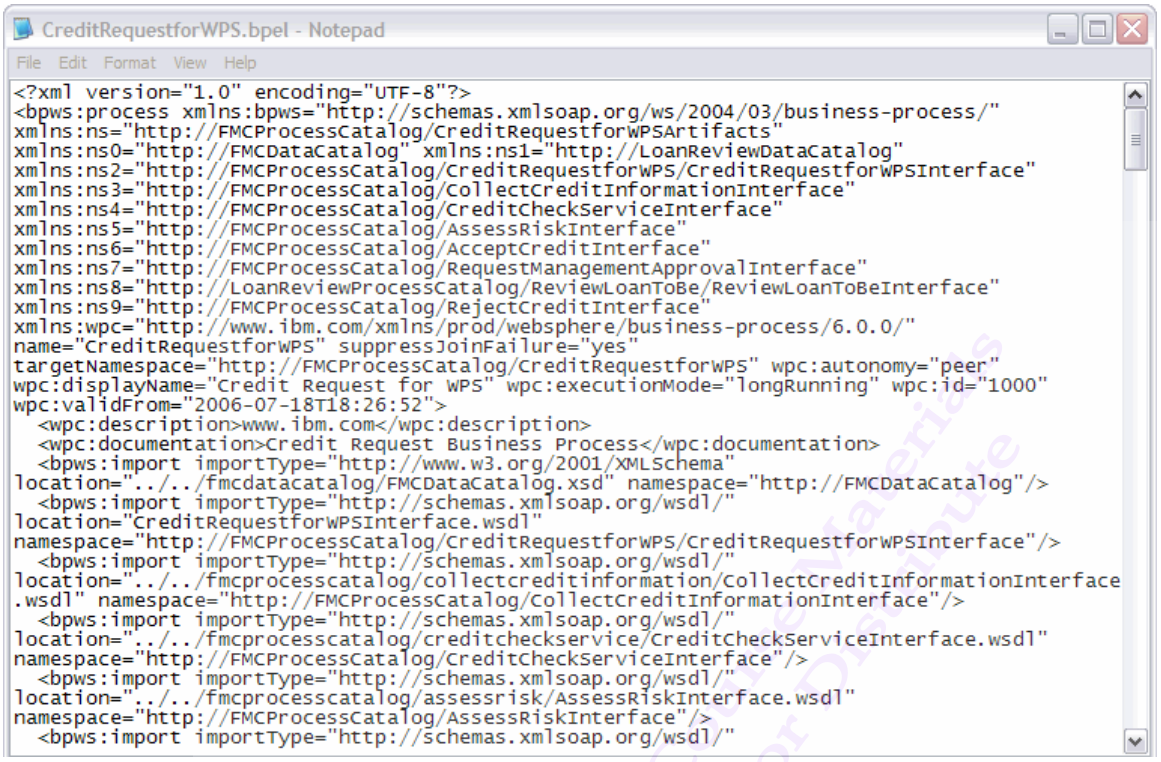
`C:\WPS Export\fmcdatacatalog\FMCDataCatalog.xsd`:



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`C:\WPS Export\fmcprocesscatalog\creditrequestforwps\CreditRequestforWPS.bpel:`



A BPEL and a WSDL file have been created for each process, and XSD files have been created for business items used within the process. The generated files are placed in subdirectories `C:\WPS Export`.

You can now import the file into WSAD-IE (WebSphere Studio Application Developer Integration Edition). No deployment-related information has been generated, so you must enter that information in WSAD-IE. This lab does not cover the import into WSAD-IE.

__ 13. Close **Notepad**.

__ 14. Exit **Modeler**.

END OF EXERCISE

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Appendix E. Preparing for Publishing Server installation

This lab prepares and plans for the WebSphere Publishing Server installation. WebSphere Portal has hardware and software requirements, and supported hardware and software versions are reviewed.

Required materials

1. **System requirements:**

   - **Processor:** Pentium 800MHz or equivalent at a minimum. Production environments should consider the Pentium 4 processor at 1.4 GHz or higher.
   - **Physical memory:** 1024 MB or more per processor.
   - **Disk space:** The following values are required if you use the installation program to install WebSphere Application Server, extensions and fixes, and WebSphere Portal (including Cloudscape).

Component	Install directory (C:/)	Temp directory (/tmp)
WebSphere Portal (including Cloudscape)	2.4 GB	750 MB
WebSphere Application Server, extensions (includes Embedded Messaging), and fixes	5 GB	750 MB
Total	3.9 GB	1.5 GB minimum **Note:** The C partition should have more than 750 MB if the Windows system directory is not C.

   Note: These values do not account for any other products or components that could be installed on the WebSphere Portal machine. Refer to the documentation for the other products for additional hardware requirement information. You can perform a custom installation of the components.
   Note: If you are installing WebSphere Portal on a system that has an existing WebSphere Application Server installation on a different partition from the partition to which you are installing WebSphere Portal, the partition containing the existing WebSphere Application Server must have at least 300 MB of free space.
   - **Virtual memory-swap space:** This value should double your physical memory. At minimum, this should be at least equal to your physical memory.
   - **File system:** NTFS file system is recommended.
   - **Operating Systems** Microsoft Windows 2000 Professional with Service Pack 4 or Microsoft Windows 2000 Server with Service Pack 4

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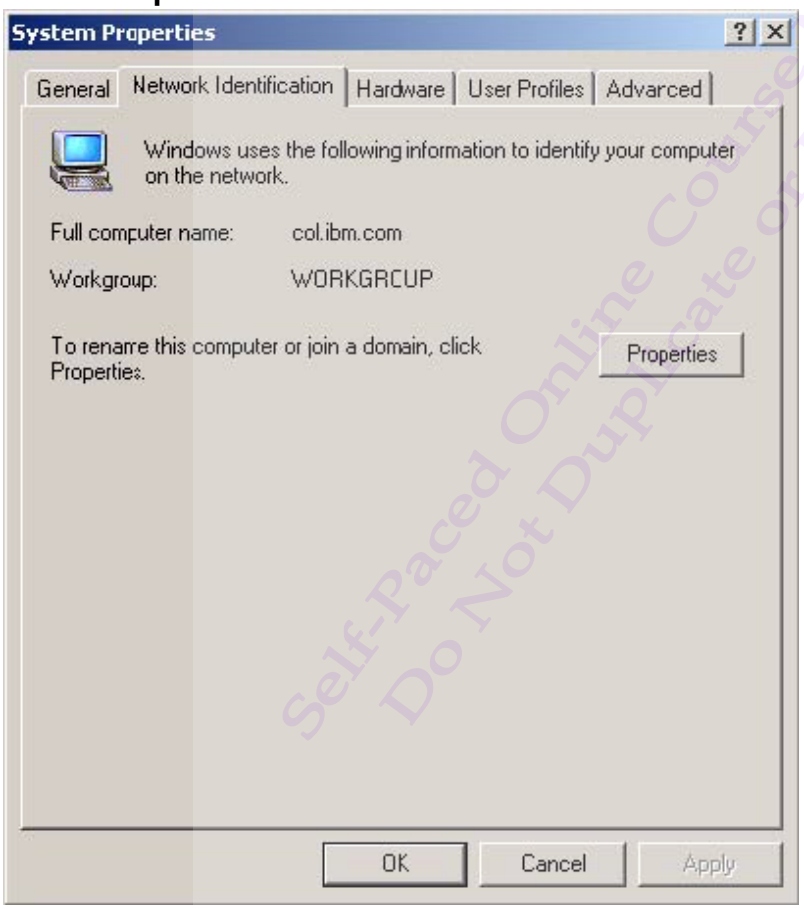
2. **Software requirements:**
   - **WebSphere Application Server version** IBM WebSphere Application Server ND Edition 6.0 Fix Pack for WebSphere Application Server 6.0.2
   - **WebSphere Portal version** IBM WebSphere Portal for Multi platforms 5.1.0.1
   - **LDAP directory servers** IBM Tivoli Directory Server 5.2 shipped with WebSphere Application Server V6.0

Part 1: Specifying computer identifier and domain name

Note: Throughout this lab, the computer name will be referred to as **wtteapps03** and the domain name **usri.ibm.com**.

__ 1. Right-click **My Computer** and select **Properties**.

__ 2. In the **System Properties** window, select the **Network Identifier** tab, and click **Properties**.

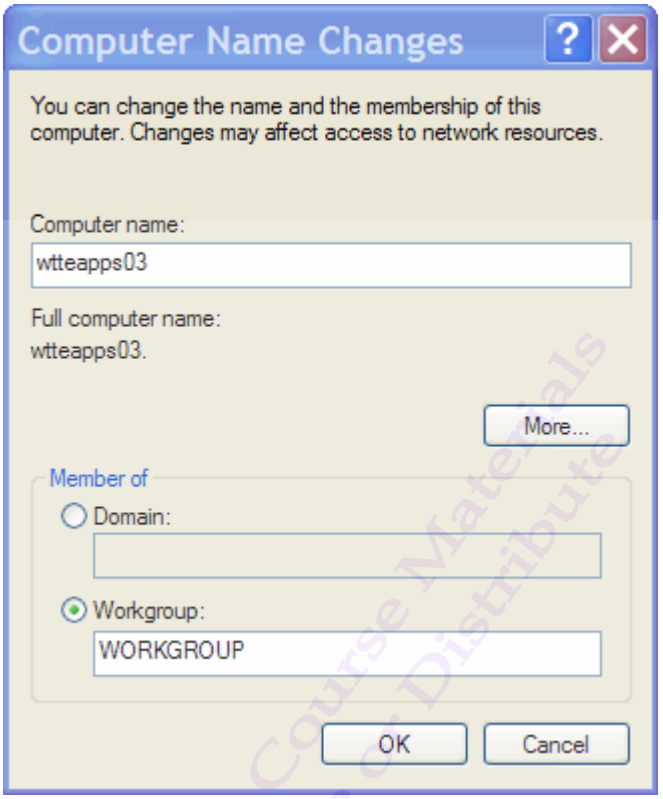


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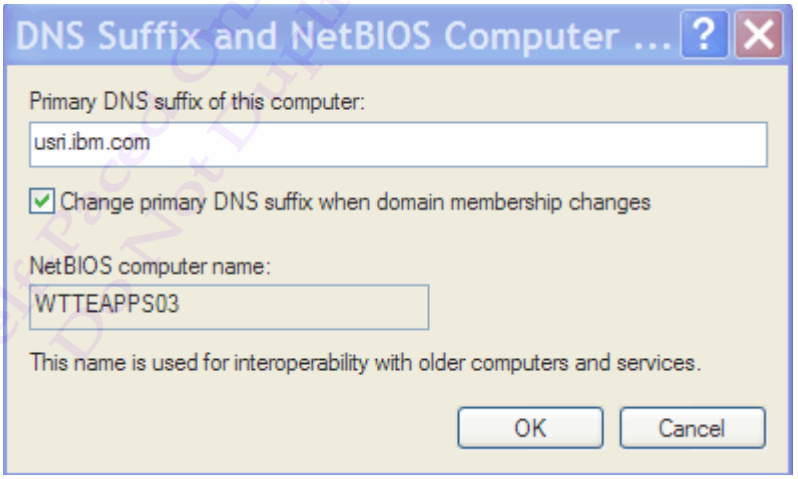
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__ 3. Under **Computer name** in **Identification Changes** window, enter the host name (for example, `wtteaps03`).



__ 4. Click **More**.

__ 5. In the pop-up window, input the computer (for example, DNS suffix: `usri.ibm.com`).


DNS Suffix and NetBIOS Computer ...
Primary DNS suffix of this computer:
usri.ibm.com
Change primary DNS suffix when domain membership changes
NetBIOS computer name:
WTTEAPPS03
This name is used for interoperability with older computers and services.
OK
Cancel

__ 6. Click **OK** three times to confirm that the system needs to be rebooted to take effect.

__ 7. Click **OK.**

__ 8. Click **NO** to restart the system later.

Part 2: Updating the host file

__ 1. Find the IP address of your server.

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__ a. Open a command prompt by **Start —> Run**.

__ b. Input `cmd`, and press Enter.

__ c. Input `ipconfig /all` in the command prompt, and press Enter.

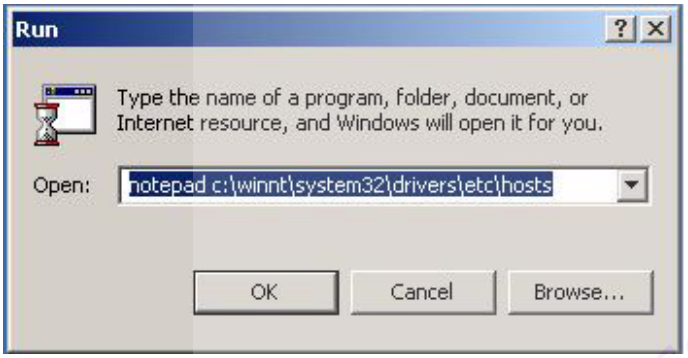
__ d. Record the IP address of your system.

__ 2. Exit the command prompt. Open the Hosts file.

__ a. Click **Start —> Run.**

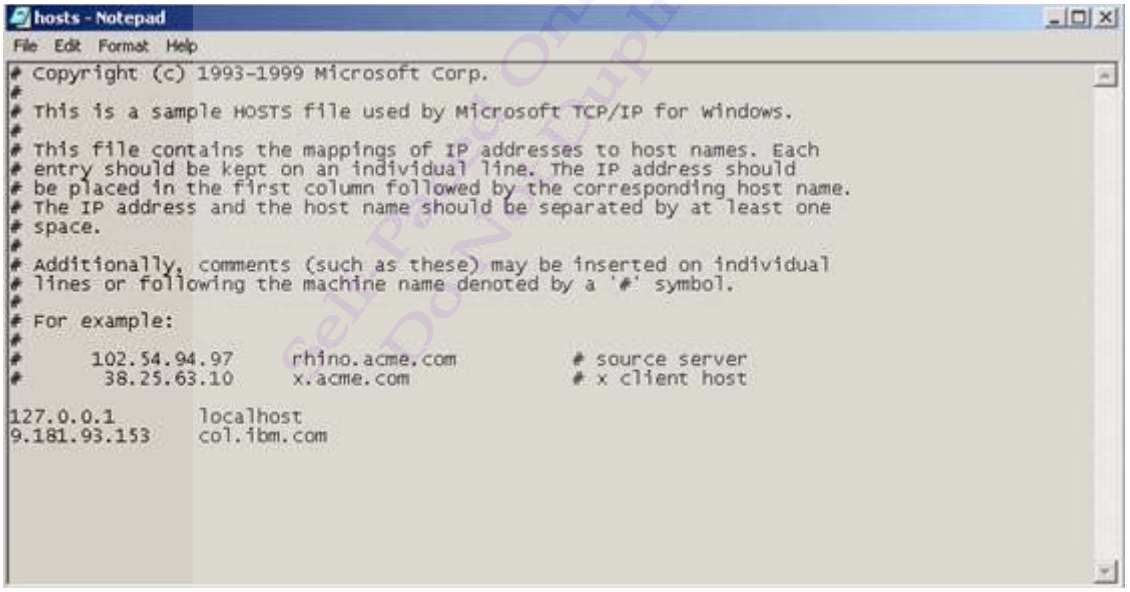
__ b. In the command space, input:
`notepad c:\winnt\system32\drivers\etc\hosts`

__ c. Click **OK**.



Note: After the command running, the hosts file is opened.

__ 3. Input the IP address and domain name, (for example, `9.181.93.153 col.ibm.com`) into the hosts file.


hosts - Notepad
File Edit Format Help
Copyright (c) 1993-1999 Microsoft Corp.
#
This is a sample HOSTS file used by Microsoft TCP/IP for Windows.
#
This file contains the mappings of IP addresses to host names. Each
entry should be kept on an individual line. The IP address should
be placed in the first column followed by the corresponding host name.
The IP address and the host name should be separated by at least one
space.
#
Additionally, comments (such as these) may be inserted on individual
lines or following the machine name denoted by a '#' symbol.
#
For example:
#
102.54.94.97   rhino.acme.com   # source server
38.25.63.10   x.acme.com   # x client host
127.0.0.1   localhost
9.181.93.153   col.ibm.com

Note: You should input the content according to the condition of your network deployment.

Part 3: Configuring the virtual memory for performance

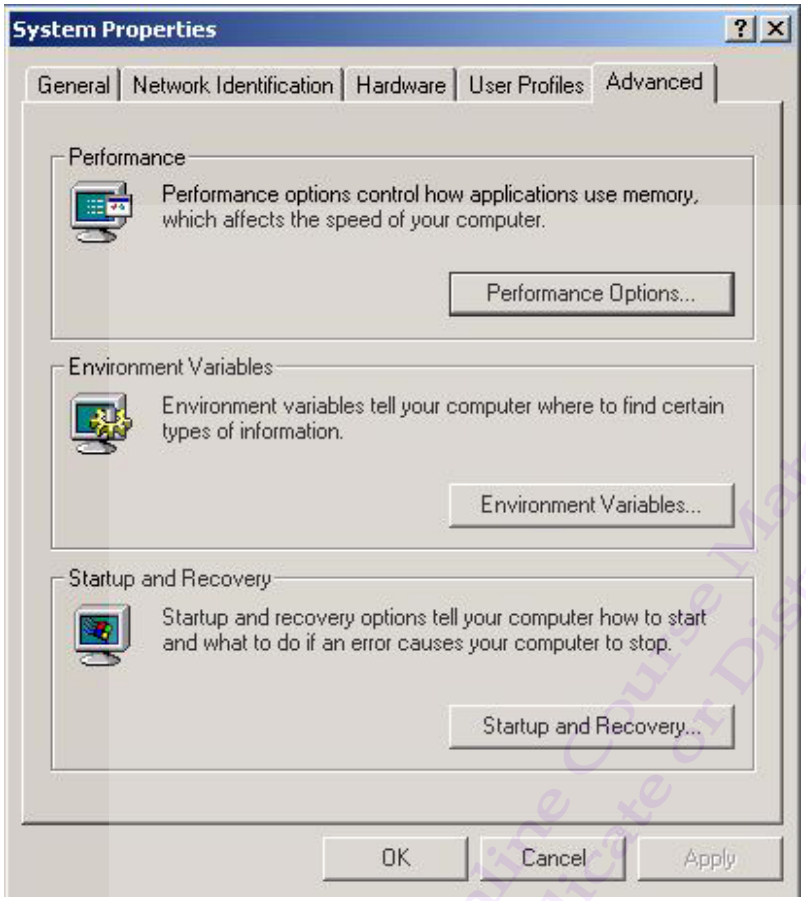
Portal installation needs to modify the virtual memory setting to perform better.

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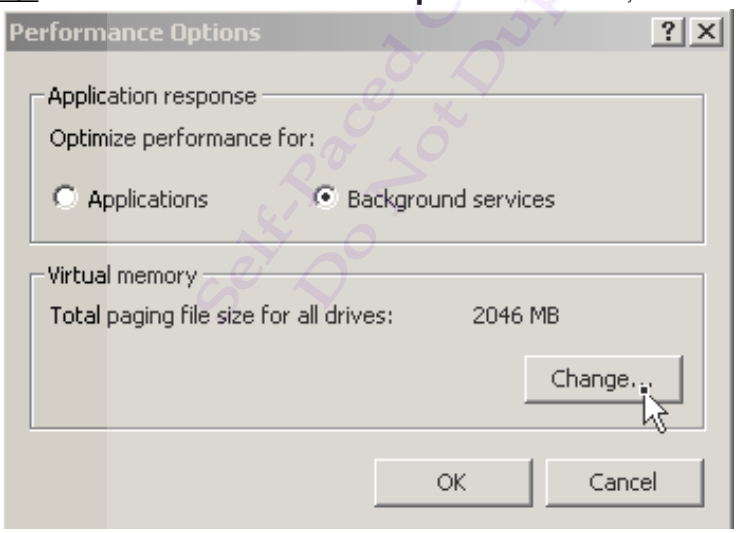
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__ 1. Right-click **My Computer** and select **Properties**.

__ 2. Select the **Advanced** tab, and click **Performance Options**.


System Properties
General
Network Identification
Hardware
User Profiles
Advanced
Performance
Performance options control how applications use memory, which affects the speed of your computer.
Performance Options...
Environment Variables
Environment variables tell your computer where to find certain types of information.
Environment Variables...
Startup and Recovery
Startup and recovery options tell your computer how to start and what to do if an error causes your computer to stop.
Startup and Recovery...
OK
Cancel
Apply

__ 3. In the **Performance Options** window, click **Change**.

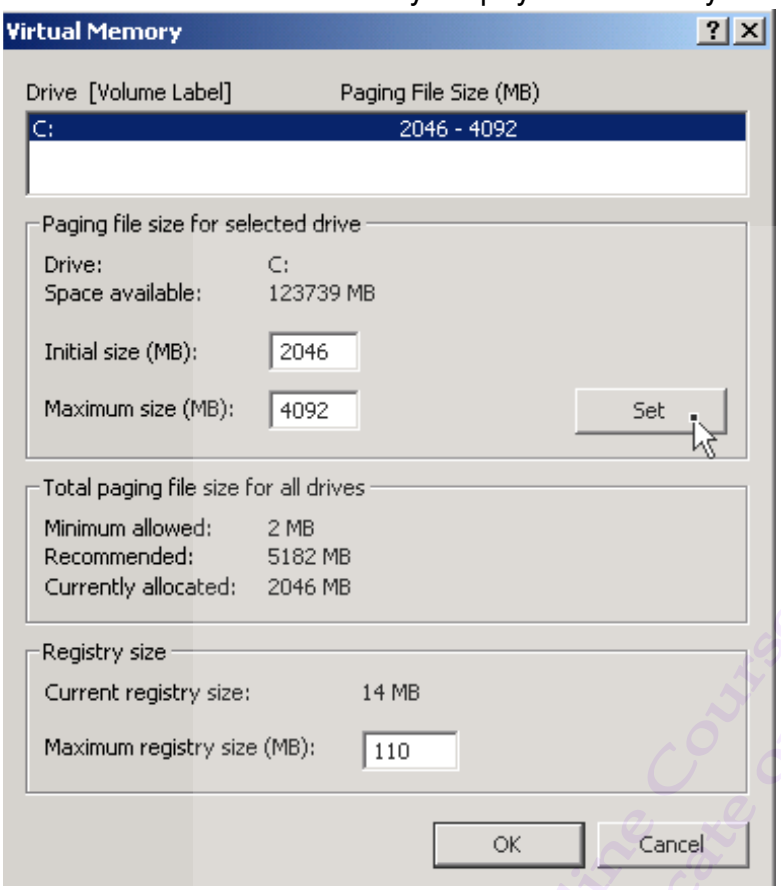


__ 4. Select the driver, and input `2048` in the **Initial size**, and `4096` in the **Maximum size**.

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Note: The minimum value should at least equal your physical memory, and the maximum value should at least double your physical memory.



__ 5. Click **Set**.

__ 6. Click **OK**.

__ 7. Click **OK** again.

__ 8. Reboot the system.

Part 4: Assigning local security policy for portal administrator

You can use an existing user ID or create a new one such as *wpsadmin* to install portal. Here you would use administrator as the portal installation user ID.

Note: This installation procedure needs the **Services** view frequently. Therefore, it is suggested that you create a shortcut on your desktop.

__ 1. Select **Start —> Settings —> Control Panel**.

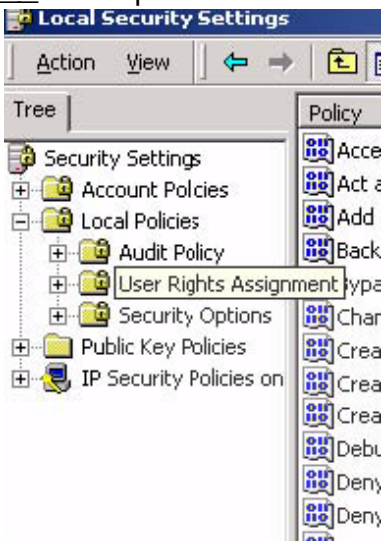
__ 2. From the **Control Panel**, double-click **Administrative Tools**.

__ 3. Double-click **Local Security Policy**.

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__ 4. Expand **Local Policy**, and select **User Rights Assignment**.

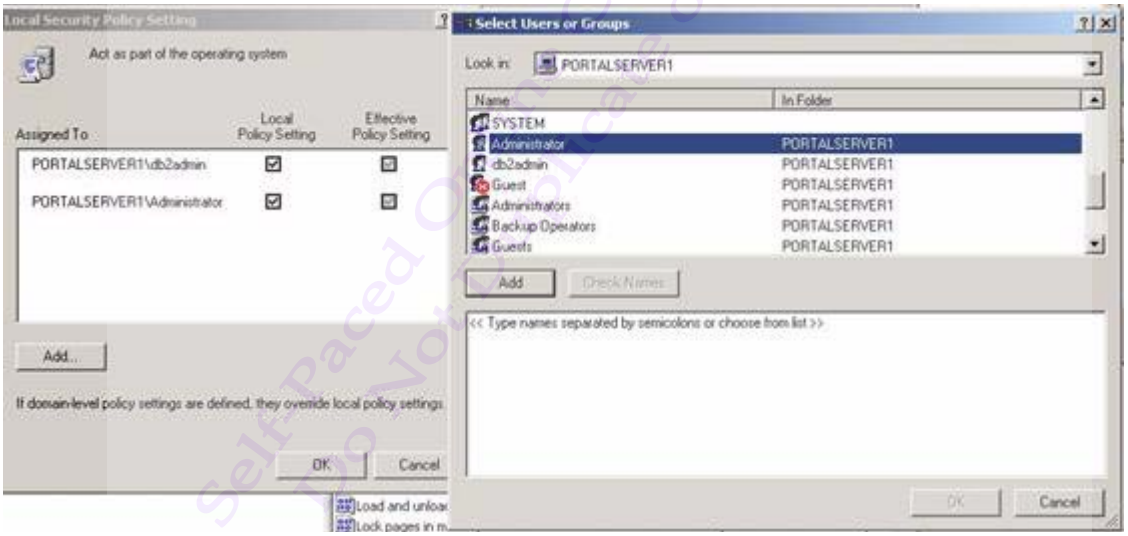


__ 5. Double-click **Act as part of the operating system**.

Note: It is usually the second policy down on the left side. This setting is needed for WebSphere Application Server and DB2.

__ 6. Click **Add.**

__ 7. Scroll down and select user **Administrator**.



__ 8. Click **Add**, and click **OK**.

__ 9. Click **OK** again.

__ 10. Repeat steps 6 – 10 for **Log on as a service** (needed for WebSphere Application Server), **Create a token object**, and **Replace a process level token**.

Note: If you do not do this before you start, the Portal 5.0 installation program will throw an error message a few screens into the install.

__ 11. Reset the password for Administrator.

__ a. Right-click **My Computer,** and select **Manage**.

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__ b. Expand **Local Users and Groups**, and select the **Users** folder.

__ c. Right-click **Administrator** on the right panel, and select **Set Password**.

__ d. Enter `wbi42@IBM` as the password twice, and click **OK**.

__ e. Click **OK** to confirm the change of password.

__ f. Exit the **Computer Management** window.

__ 12. Close all the windows.

__ 13. Reboot Windows, and log in as **Administrator**.

__ 14. Check that your network settings are good.

__ a. Ping your machine at the command prompt by typing `ping col.ibm.com` and press Enter.

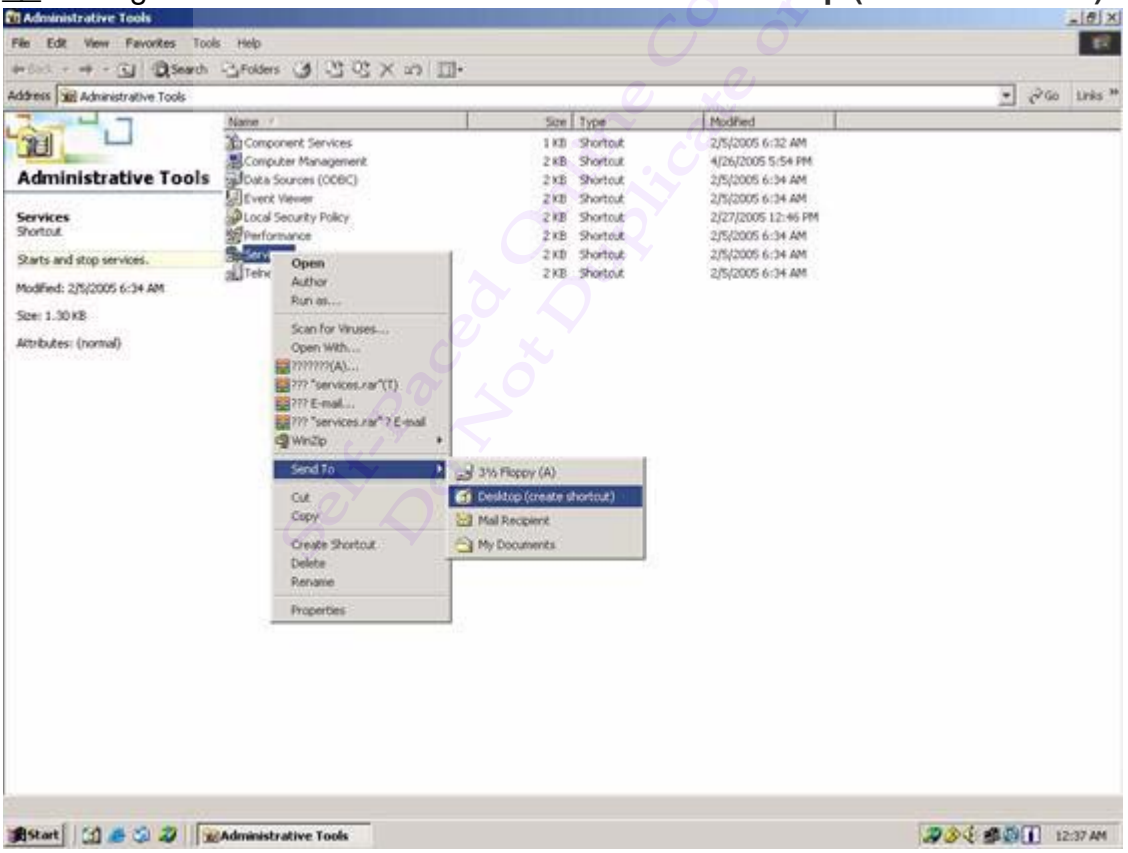
__ b. You should get a reply from your machine with the suffix added.

__ c. Exit the command prompt.

__ 15. Select **Start —> Settings —> Control Panel**

__ 16. From the **Control Panel**, double-click **Administrative Tools**.

__ 17. Right-click **Service** and select **Sent To —> Desktop (create shortcut)**.



__ 18. Close the control panel.

Part 5: Downloading software

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The following instructions tell IBM employees who are taking this as a self-paced course how to obtain the software needed for this lab. For non-IBM employees who are also taking this as a self-paced course, you can omit this section as not being applicable, and instead follow your employer's standard procedures for obtaining appropriately licensed software.

__ 1. Download WebSphere Application Server and LDAP.

__ a. Go to Extreme Leverage Software Download Site:
`https://w3-104.ibm.com/software/xl/download.nsf/ticket?openform`

__ b. Enter your IBM intranet user name and password.

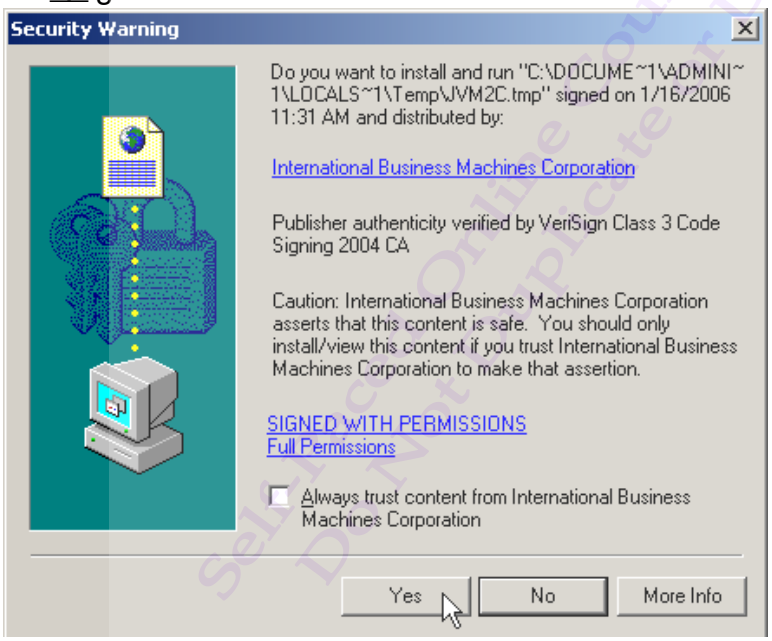
__ c. Click **Yes** if you are asked to display non-secure items.

__ d. Do a text search in **eAssembly only** for: `WebSphere Application Server Network Deployment V6.0 Multiplatform eAssembly (Includes V6.0.1 and V6.0.2 Refreshes)`

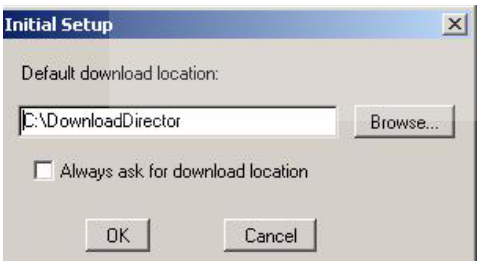
__ e. Expand the search results, and check the entry ending with (`C587UML`) and the entry ending with **(**`C59HTML`**)**

__ f. Scroll down to the bottom of the page, select **I agree**, and click **Download now**.

__ g. Click **Yes**.


Security Warning
Do you want to install and run "C:\DOCUME~1\ADMINI~1\LOCALS~1\Temp\JVM2C.tmp" signed on 1/16/2006 11:31 AM and distributed by:
International Business Machines Corporation
Publisher authenticity verified by VeriSign Class 3 Code Signing 2004 CA
Caution: International Business Machines Corporation asserts that this content is safe. You should only install/view this content if you trust International Business Machines Corporation to make that assertion.
SIGNED WITH PERMISSIONS
Full Permissions
Always trust content from International Business Machines Corporation
Yes
No
More Info

__ h. Click **OK**



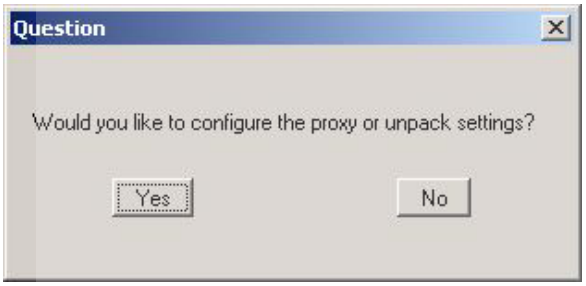
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__ i. Click OK.



__ j. Click **No**.



__ k. Download of WebSphere Application Server NND 6.0 and Tivoli LDAP 5.2 for windows shipped with WebSphere Application Server 6.0 will start with Direct Download.

__ l. Go to `http://www.ibm.com/support/docview.wss?rs=180&uid=swg24009813` to download WebSphere Application Server 6.0 Refresh Pack 2.

__ m. Scroll down to the Download package section, and click the **DD** link for **32-bit x86 AMD/Intel AppServer**.

__ n. Click **I agree**.

__ o. Direct Download will automatically add the file `6.0-WS-WAS-WinX32-RP0000002.zip` to the download file queue.

__ p. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK07351&uid=swg24010278&loc=en_US&cs=utf-8&lang=en` and scroll down to the Download package section.

__ q. Click the **DD** link for **6.0.2-WS-WAS-MultiOS-IFPK07351**, select **I agree** when asked, and the Download Director will add the file to the download file queue.

__ r. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK09347&uid=swg24010108&loc=en_US&cs=utf-8&lang=en` and scroll down to the Download package section.

__ s. Click the **DD** link for **6.0.2-WS-WAS-MultiOS-IFPK09347**, select **I agree** when asked, and the Download Director will add the file to the download file queue.

__ t. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK11623&uid=`

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swg24010666&loc=en_US&cs=utf-8&lang=en and scroll down to the Download package section.

__ u. Click the **DD** link for **PK11623**, select **I agree** when asked, and the Download Director will add the file to the download file queue.

__ 2. Portal

__ a. Go to Extreme Leverage Software Download Site: https://w3-104.ibm.com/software/xl/download.nsf/ticket?openform

__ b. Enter your IBM intranet user name and password, if it asks for it.

__ c. Do a text search in **eAssembly only** for: WebSphere Portal V5.1.0.1 - WebSphere Portal Enable for Multiplatforms, V5.1.0.1 eAssembly

__ d. Expand the search results, and check the entry ending with (C82XSML), the entry ending with (C82Y1ML), the entry ending with (C82Y2ML), the entry ending with (C82WLML), and the entry ending with (C82WNML).

__ e. Scroll down to the bottom of the page, select **I agree**, and click **Download now**.

__ f. Direct Download will automatically add the files checked above, which are Install(Setup), PortalServer(2), WWCM&PZN(3), PortalArchive(5-1), PortalArcihve(5-3), to the download file queue.

__ g. Go to http://www.ibm.com/support/docview.wss?rs=688&context=SSHRKX&dc=D400&q1=5.1.0.2&uid=swg24010518&loc=en_US&cs=utf-8&lang=en

__ h. Click **HTTPS** link for **WebSphere Portal V5.1.0.2**.

__ i. Click **I Agree**.

__ j. Click **Sign In**, and sign in with your IBM user name and password.

__ k. Check **I agree**, and click **I confirm**.

__ l. Search for WP_PTF_5102.jar(zip) and PortalUpdateInstaller.zip and click the **Download Now** link behind them to start download.

__ 3. Domino Server

__ a. Go to the Extreme Leverage Software Download Site: https://w3-104.ibm.com/software/xl/download.nsf/ticket?openform

__ b. Enter your IBM intranet user name and password, if it asks for it.

__ c. Do a text search for: Domino Utility Multi O/S 6.5.4 eAssembly English

__ d. Expand the search results, and select the entry ending with (C82BQNA) and the entry ending with (C82BPNA)

__ e. Scroll down to the bottom of the page, select **I agree**, and click **Download now**.

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__ f. Direct Download will automatically add the files checked above, which are the Domino Server and Notes, Designer and Administrator Client, to the download file queue.

__ 4. Publishing Server

__ a. Go to Extreme Leverage Software Download Site: `https://w3-104.ibm.com/software/xl/download.nsf/ticket?openform`

__ b. Enter your IBM intranet user name and password, if it asks for it.

__ c. Do a text search for: `WebSphere Business Modeler Publishing Server V6.0.1, Windows 2000 Windows XP, Multilingual`

__ d. Expand the search results, and select the entry with (`C900IML`).

__ e. Scroll down to the bottom of the page, select **I agree**, and click **Download now**.

__ f. Direct Download will automatically add the Publishing Server file checked above to the download file queue.

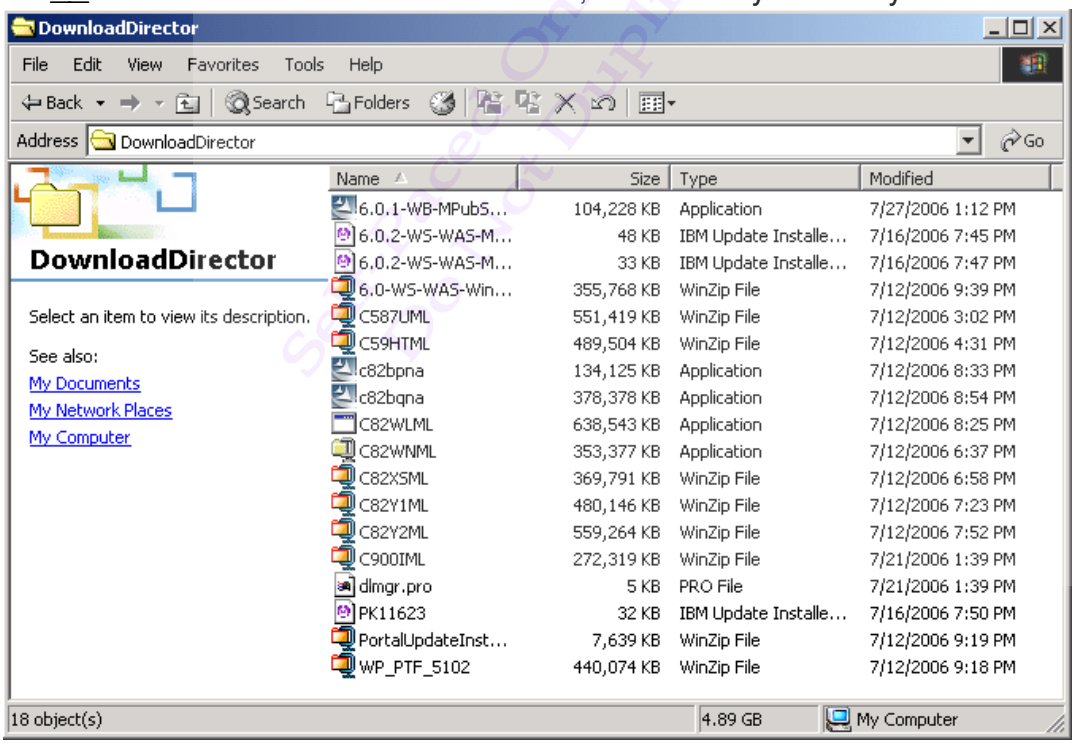
__ g. Go to `http://www.ibm.com/support/docview.wss?rs=2331&context=SSCRHV&dc=D400&uid=swg24012853&loc=en_US&cs=UTF-8&lang=en`

__ h. Click the **FTP** link for **6.0.1-WB-MPubServer-IF0000003.exe**.

__ i. Click **I agree**.

__ j. Save the file to `C:\DownloadDirector`.

__ k. Wait for all downloads to finish, and select your file system as well as file sizes.


DownloadDirector
File Edit View Favorites Tools Help
Back Search Folders
Address DownloadDirector
Go
DownloadDirector
Select an item to view its description.
See also:
My Documents
My Network Places
My Computer
Name Size Type Modified
6.0.1-WB-MPubS... 104,228 KB Application 7/27/2006 1:12 PM
6.0.2-WS-WAS-M... 48 KB IBM Update Installe... 7/16/2006 7:45 PM
6.0.2-WS-WAS-M... 33 KB IBM Update Installe... 7/16/2006 7:47 PM
6.0-WS-WAS-Win... 355,768 KB WinZip File 7/12/2006 9:39 PM
C587UML 551,419 KB WinZip File 7/12/2006 3:02 PM
C59HTML 489,504 KB WinZip File 7/12/2006 4:31 PM
c82bpna 134,125 KB Application 7/12/2006 8:33 PM
c82bqna 378,378 KB Application 7/12/2006 8:54 PM
C82WLML 638,543 KB Application 7/12/2006 8:25 PM
C82WNML 353,377 KB Application 7/12/2006 6:37 PM
C82XSML 369,791 KB WinZip File 7/12/2006 6:58 PM
C82Y1ML 480,146 KB WinZip File 7/12/2006 7:23 PM
C82Y2ML 559,264 KB WinZip File 7/12/2006 7:52 PM
C900IML 272,319 KB WinZip File 7/21/2006 1:39 PM
dlmgr.pro 5 KB PRO File 7/21/2006 1:39 PM
PK11623 32 KB IBM Update Installe... 7/16/2006 7:50 PM
PortalUpdateInst... 7,639 KB WinZip File 7/12/2006 9:19 PM
WP_PTF_5102 440,074 KB WinZip File 7/12/2006 9:18 PM
18 object(s)
4.89 GB
My Computer

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Appendix F. Installing WebSphere Application Server

Part 1: Installing WebSphere Application Server

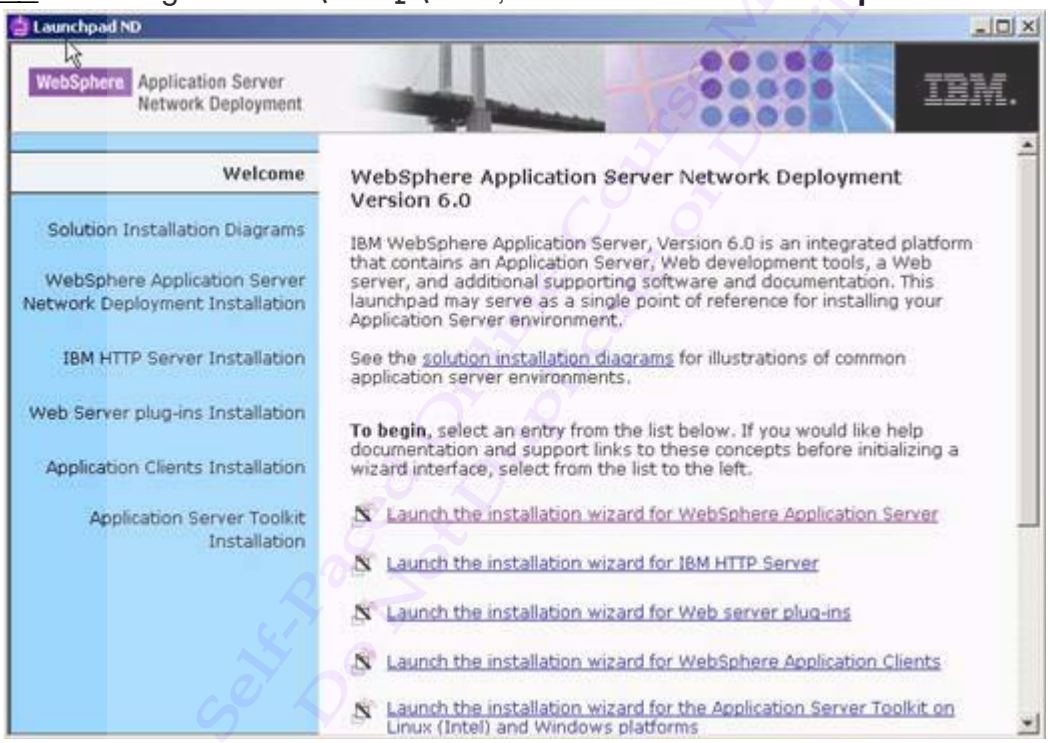
Portal server is based on WebSphere Application Server server. Before installing WebSphere Application Server 6.0, you must have JDK tool installed on your machine, or an error message will pop up when installing WebSphere Application Server 6.0.

__ 1. Navigate to `C:\DownloadDirector`.

__ 2. Double-click **C587UML.zip** to extract to `C:\Unzip\WAS60`.

Note: On Windows platforms, the pkunzip utility might not decompress the download image correctly. Use another utility (such as WinZip) to extract the image.

__ 3. Navigate to `C:\Unzip\WA60`, and double-click **launchpad.bat** to start the lauchpad.


Launchpad ND
WebSphere Application Server Network Deployment
IBM.
Welcome
Solution Installation Diagrams
WebSphere Application Server Network Deployment Installation
IBM HTTP Server Installation
Web Server plug-ins Installation
Application Clients Installation
Application Server Toolkit Installation
WebSphere Application Server Network Deployment Version 6.0
IBM WebSphere Application Server, Version 6.0 is an integrated platform that contains an Application Server, Web development tools, a Web server, and additional supporting software and documentation. This launchpad may serve as a single point of reference for installing your Application Server environment.
See the solution installation diagrams for illustrations of common application server environments.
To begin, select an entry from the list below. If you would like help documentation and support links to these concepts before initializing a wizard interface, select from the list to the left.
Launch the installation wizard for WebSphere Application Server
Launch the installation wizard for IBM HTTP Server
Launch the installation wizard for Web server plug-ins
Launch the installation wizard for WebSphere Application Clients
Launch the installation wizard for the Application Server Toolkit on Linux (Intel) and Windows platforms

__ 4. Click **Launch the installation Wizard for WebSphere Application Server**.

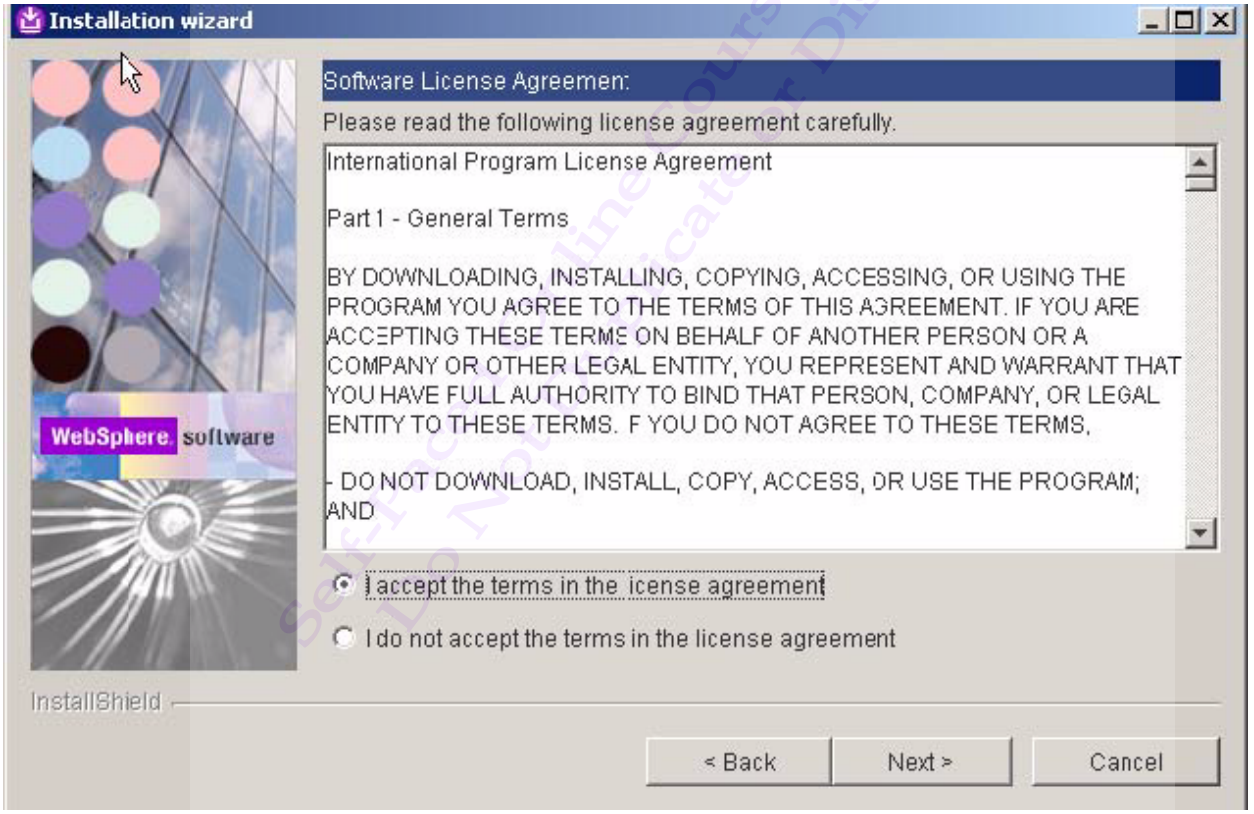
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__ 5. Click **Next**.


Installation wizard
Welcome to IBM WebSphere Application Server Network Deployment, V6
This edition of WebSphere Application Server supports multinode, multiprocess distributed environments.
In prior releases, a complete Network Deployment installation was achieved by running two separate installation procedures, each from its own CD. In Version 6, you can define an equivalent configuration from a single installation in a two-part procedure that uses wizards.
In the first part, this installation wizard will guide you through the installation of WebSphere Application Server core product files.
Upon completion of the first part, a second wizard will guide you through the creation of a run-time environment for the WebSphere Application Server product, known as a profile. At least one profile must be created to have a functional installation.
WebSphere software
InstallShield
< Back
Next >
Cancel

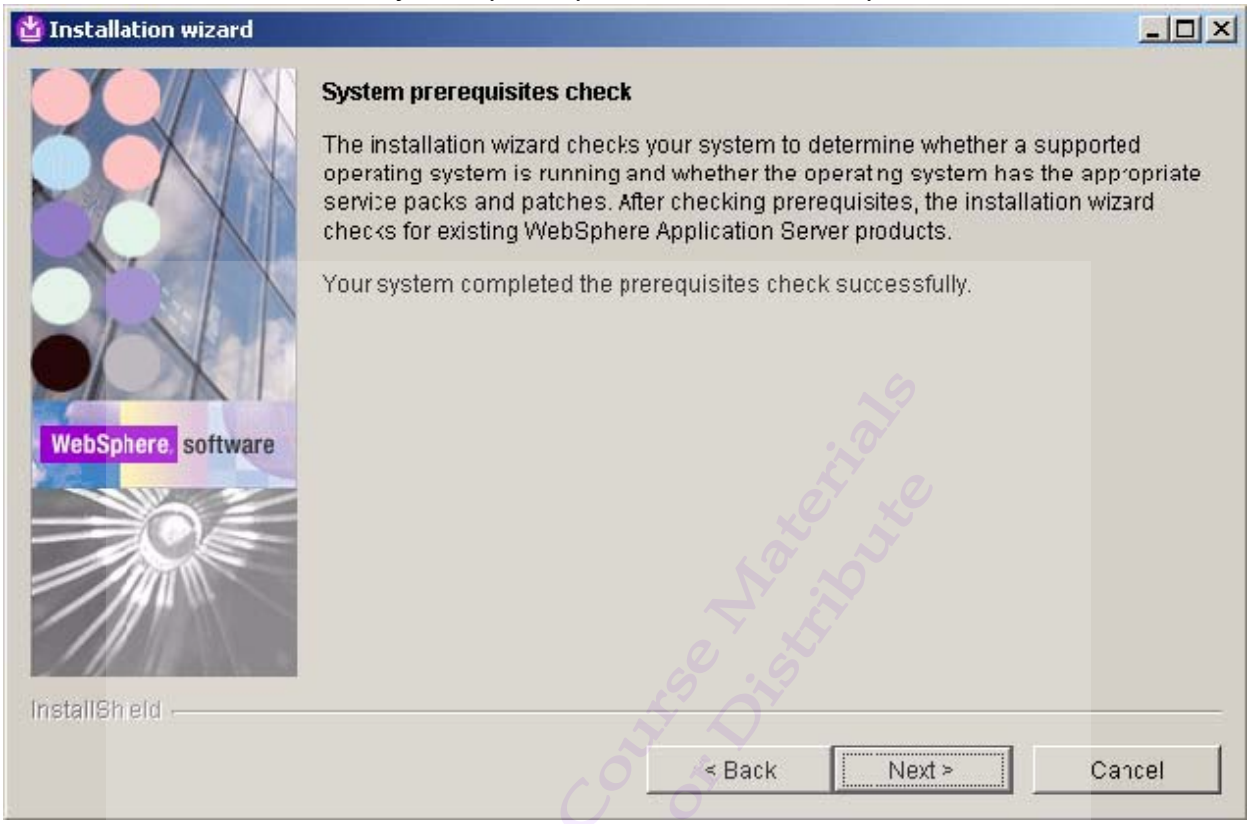
__ 6. Select **I Accept the terms in the license agreement** at the License Agreement window, and click **Next**.


Installation wizard
Software License Agreemen:
Please read the following license agreement carefully.
International Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO THESE TERMS. F YOU DO NOT AGREE TO THESE TERMS,
- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM; AND
I accept the terms in the license agreement
I do not accept the terms in the license agreement
WebSphere software
InstallShield
< Back
Next >
Cancel

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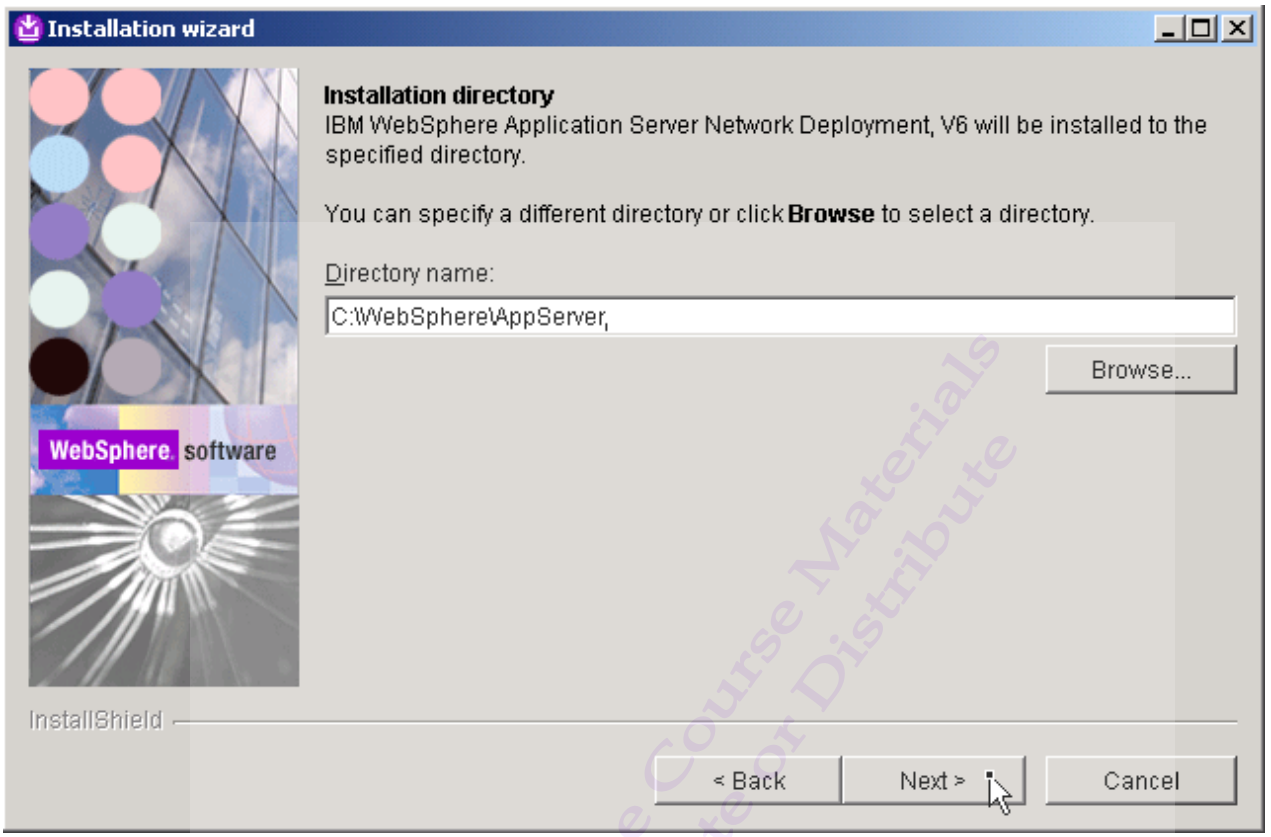
__ 7. Click **Next** after the system prerequisites check is complete.


Installation wizard
System prerequisites check
The installation wizard checks your system to determine whether a supported operating system is running and whether the operating system has the appropriate service packs and patches. After checking prerequisites, the installation wizard checks for existing WebSphere Application Server products.
Your system completed the prerequisites check successfully.
WebSphere software
InstallShield
< Back
Next >
Cancel

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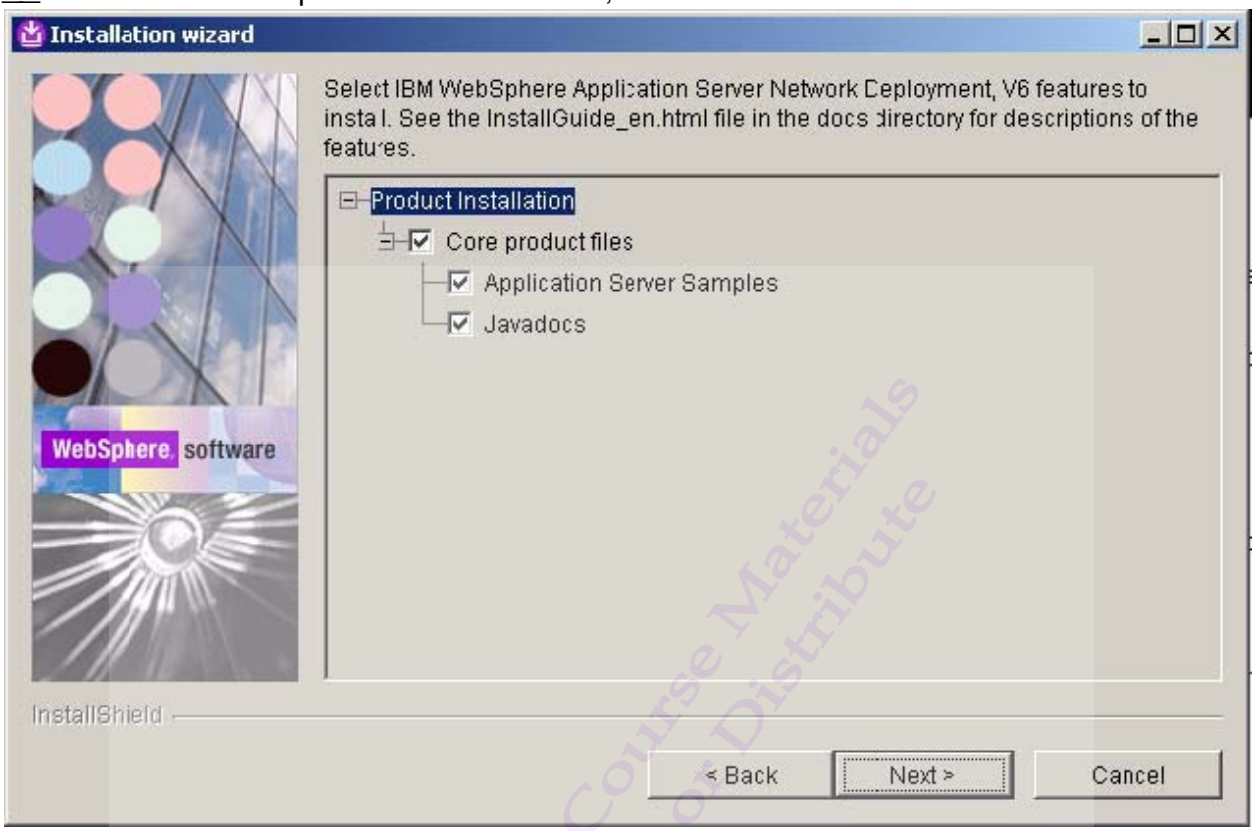
__ 8. At the Installation Directory, set the installation directories to `C:\WebSphere\AppServer` and then click **Next**.



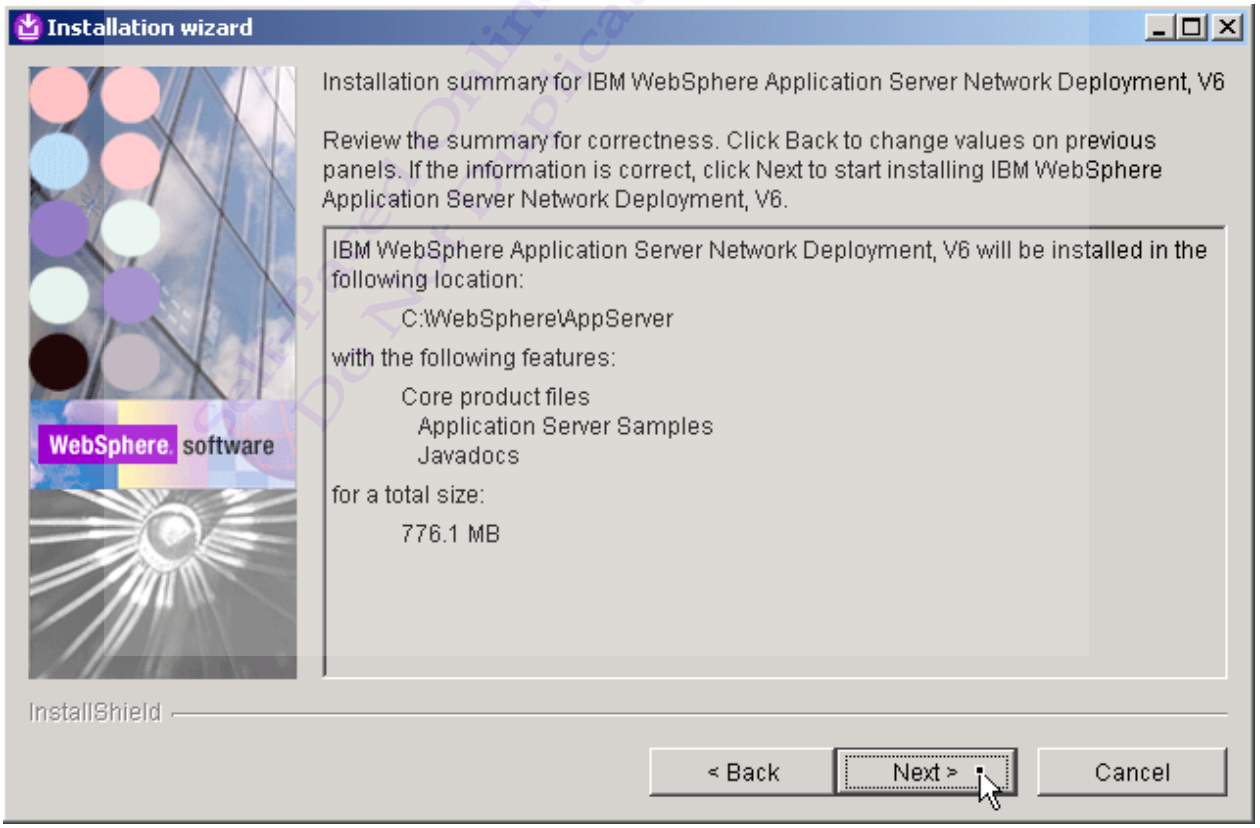
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__ 9. Make sure all products are selected, and click **Next**.


Installation wizard
Select IBM WebSphere Application Server Network Deployment, V6 features to install. See the InstallGuide_en.html file in the docs directory for descriptions of the features.
Product Installation
Core product files
Application Server Samples
Javadocs
WebSphere software
InstallShield
< Back
Next >
Cancel

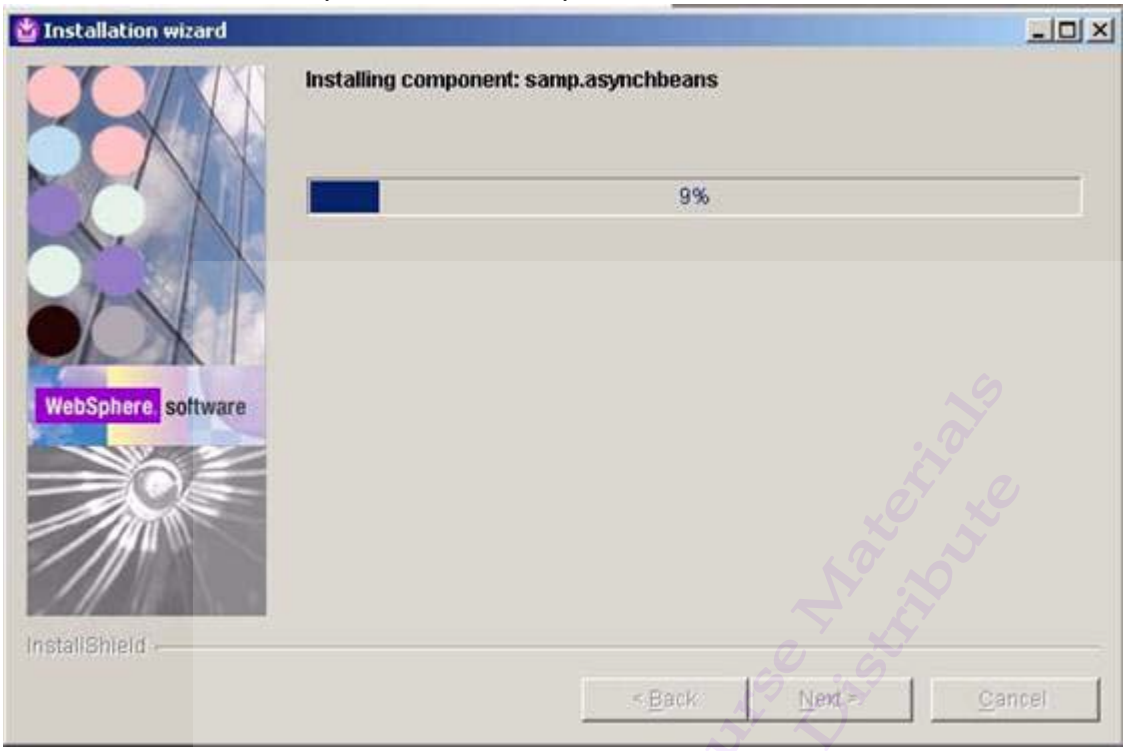
__ 10. Click **Next**.


Installation wizard
Installation summary for IBM WebSphere Application Server Network Deployment, V6
Review the summary for correctness. Click Back to change values on previous panels. If the information is correct, click Next to start installing IBM WebSphere Application Server Network Deployment, V6.
IBM WebSphere Application Server Network Deployment, V6 will be installed in the following location:
C:\WebSphere\AppServer
with the following features:
Core product files
Application Server Samples
Javadocs
for a total size:
776.1 MB
WebSphere software
InstallShield
< Back
Next >
Cancel

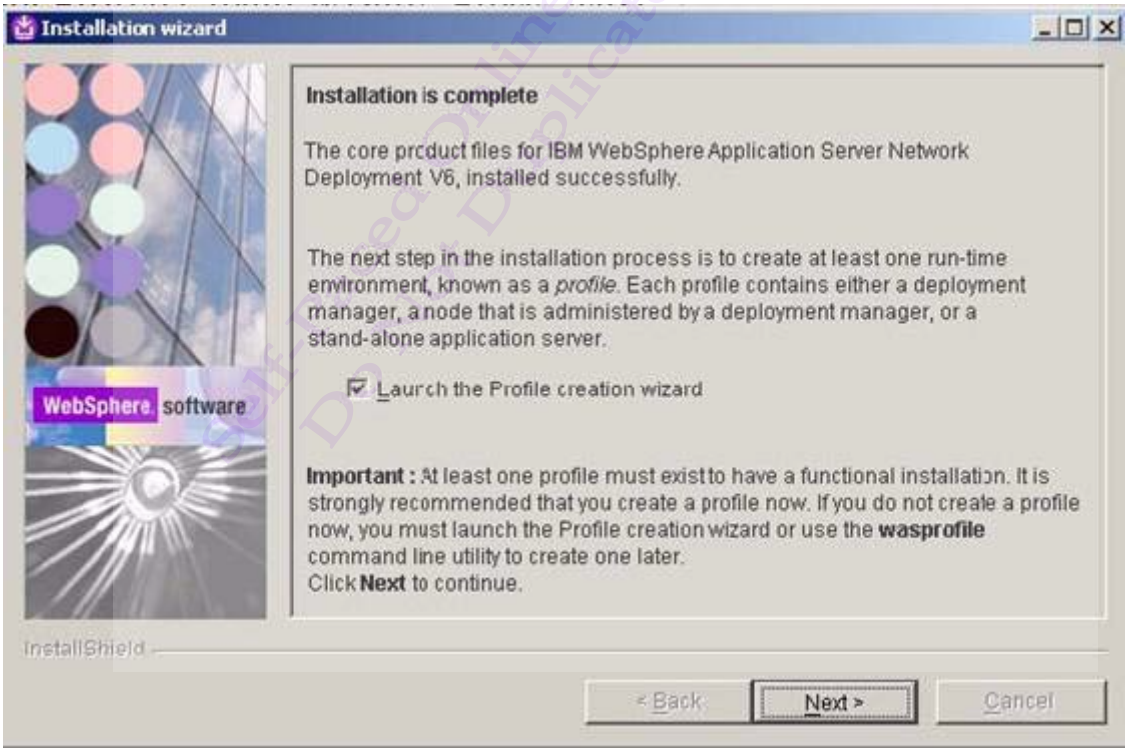
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__ 11. The installation process shows up.



__ 12. When the installation completes, make sure the **Launch the Profile creation wizard** check box is selected and click **Next**.

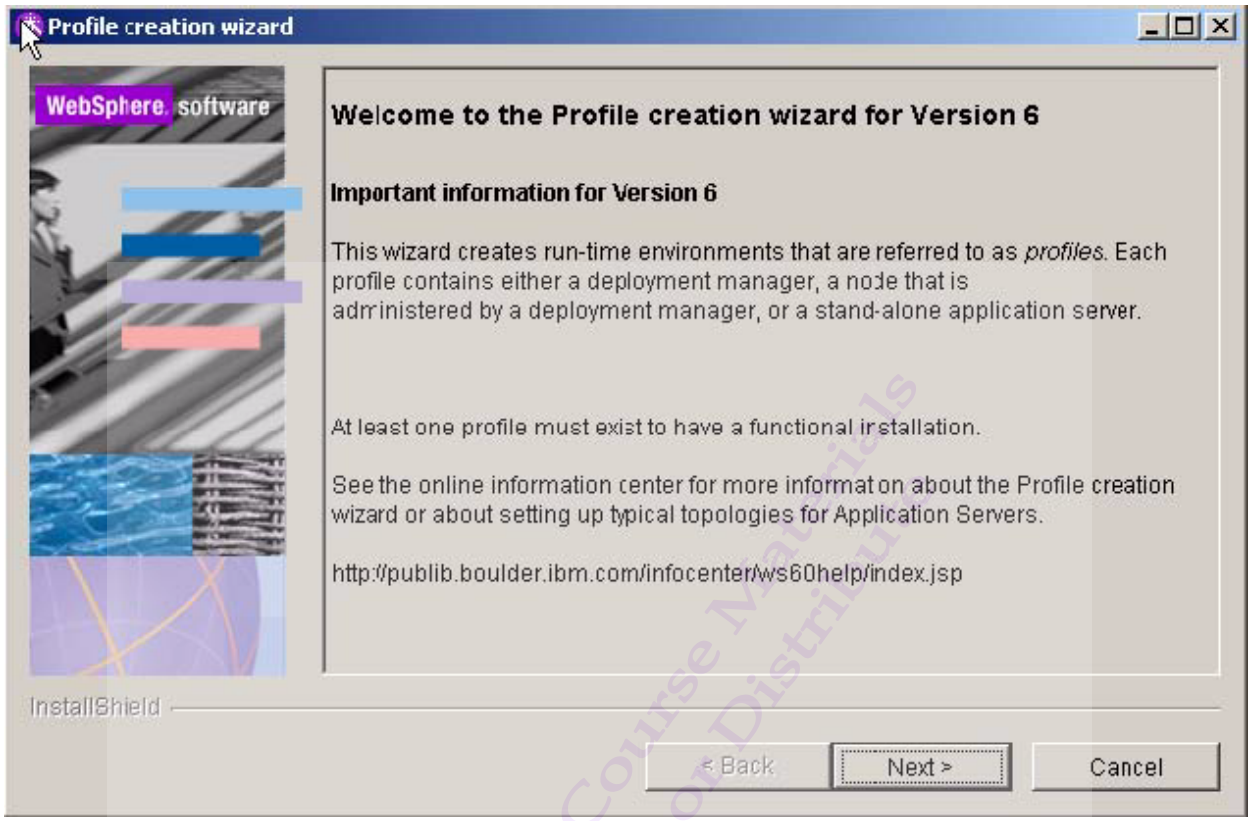

Installation wizard
Installation is complete
The core product files for IBM WebSphere Application Server Network Deployment V6, installed successfully.
The next step in the installation process is to create at least one run-time environment, known as a profile. Each profile contains either a deployment manager, a node that is administered by a deployment manager, or a stand-alone application server.
Launch the Profile creation wizard
Important : At least one profile must exist to have a functional installation. It is strongly recommended that you create a profile now. If you do not create a profile now, you must launch the Profile creation wizard or use the wasprofile command line utility to create one later.
Click Next to continue.
WebSphere software
InstallShield
< Back
Next >
Cancel

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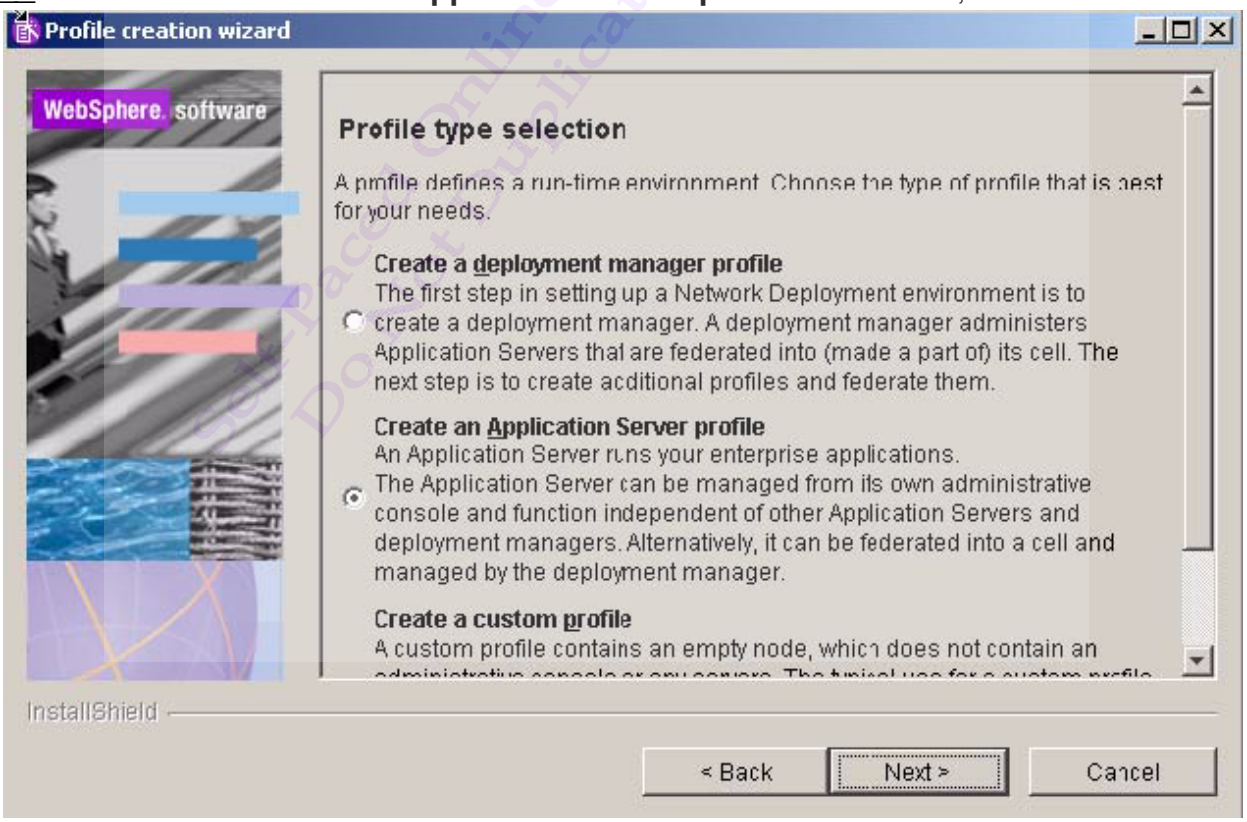
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__ 13. Click **Next** at the Profile Create Wizard window.


Profile creation wizard
WebSphere. software
Welcome to the Profile creation wizard for Version 6
Important information for Version 6
This wizard creates run-time environments that are referred to as profiles. Each profile contains either a deployment manager, a node that is administered by a deployment manager, or a stand-alone application server.
At least one profile must exist to have a functional installation.
See the online information center for more information about the Profile creation wizard or about setting up typical topologies for Application Servers.
http://publib.boulder.ibm.com/infocenter/ws60help/index.jsp
InstallShield
< Back
Next >
Cancel

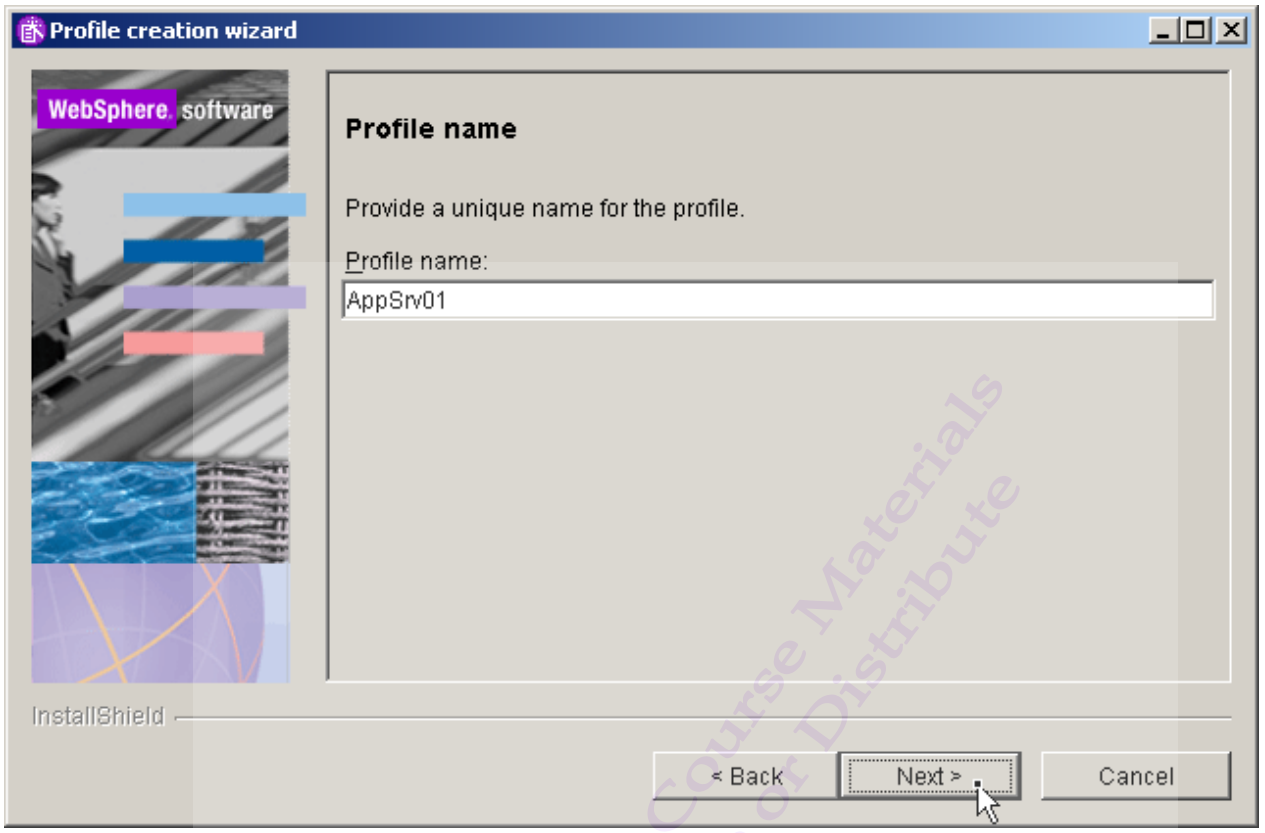
__ 14. Make sure **Create an Application Server profile** is selected, and click **Next.**


Profile creation wizard
WebSphere. software
Profile type selection
A profile defines a run-time environment. Choose the type of profile that is best for your needs.
Create a deployment manager profile
The first step in setting up a Network Deployment environment is to create a deployment manager. A deployment manager administers Application Servers that are federated into (made a part of) its cell. The next step is to create additional profiles and federate them.
Create an Application Server profile
An Application Server runs your enterprise applications. The Application Server can be managed from its own administrative console and function independent of other Application Servers and deployment managers. Alternatively, it can be federated into a cell and managed by the deployment manager.
Create a custom profile
A custom profile contains an empty node, which does not contain an
InstallShield
< Back
Next >
Cancel

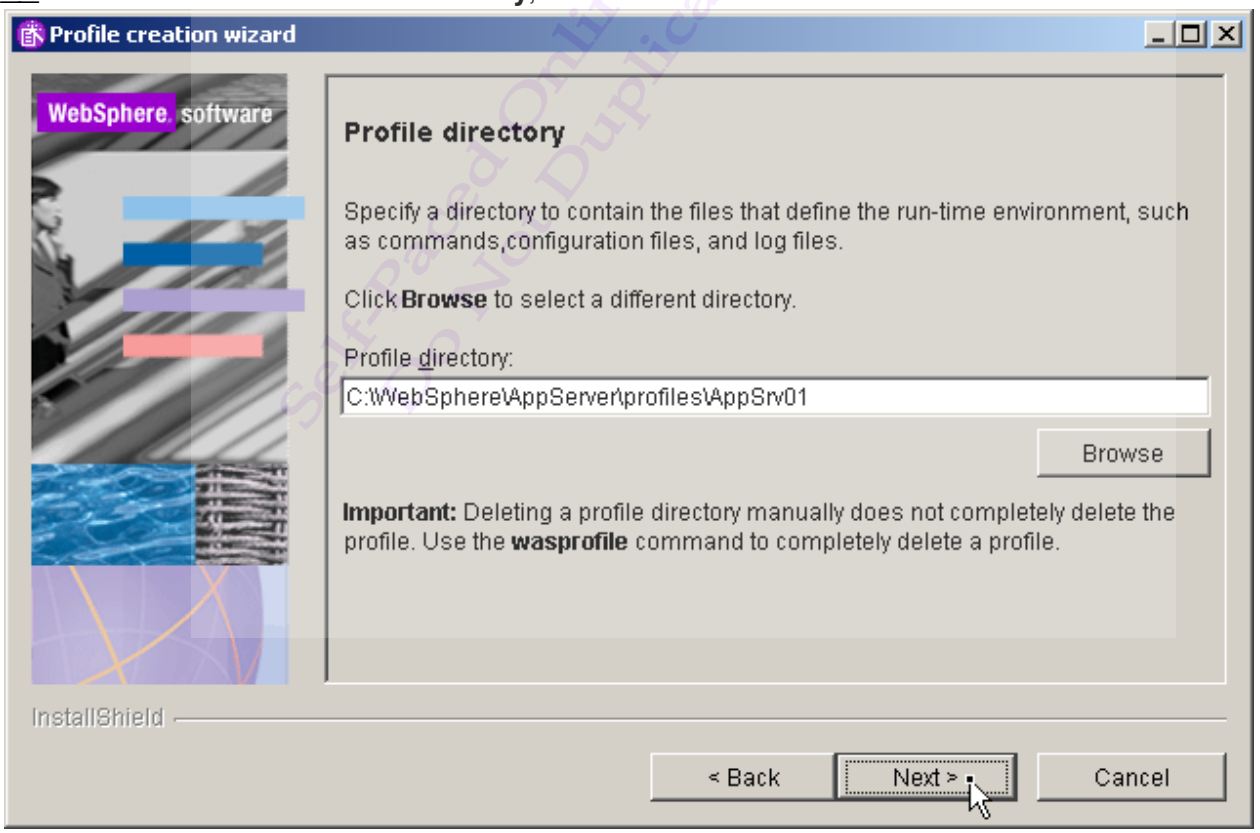
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__ 15. Examine the **Profile name**, and click **Next**.



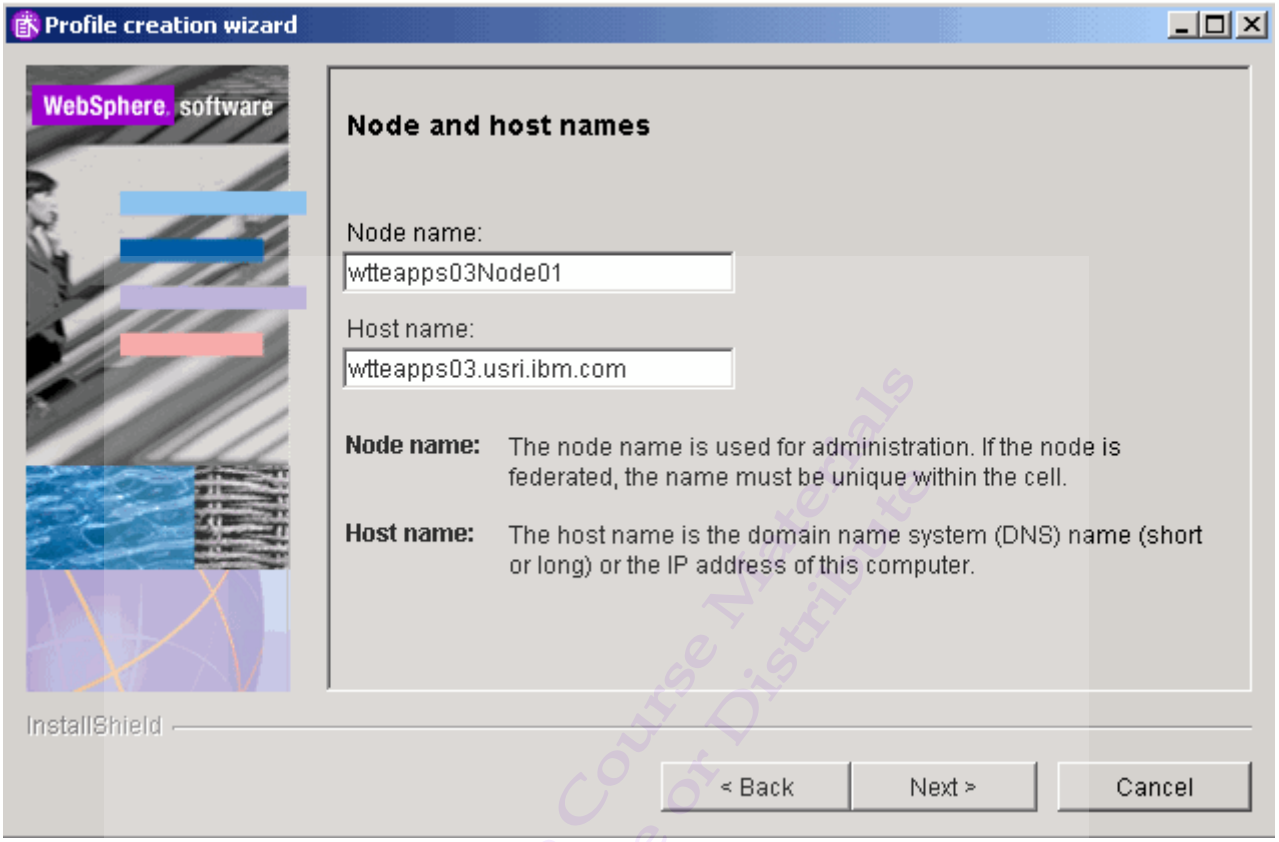
__ 16. Examine the **Profile directory**, and click **Next**


Profile creation wizard
WebSphere software
Profile directory
Specify a directory to contain the files that define the run-time environment, such as commands,configuration files, and log files.
Click Browse to select a different directory.
Profile directory:
C:\WebSphere\AppServer\profiles\AppSrv01
Browse
Important: Deleting a profile directory manually does not completely delete the profile. Use the wasprofile command to completely delete a profile.
InstallShield
< Back
Next >
Cancel

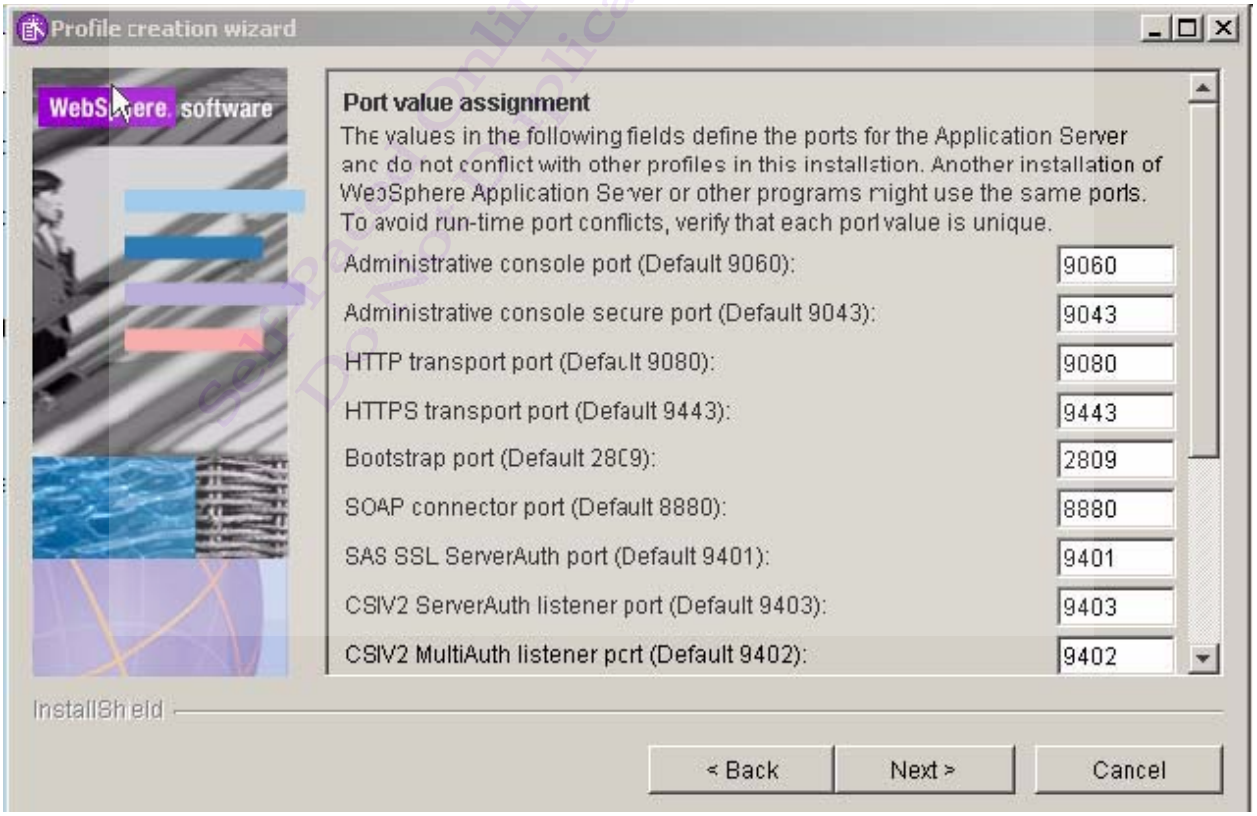
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__ 17. Examine the **Node name** and **Host name** and click **Next**.


Profile creation wizard
WebSphere. software
Node and host names
Node name:
wtteapps03Node01
Host name:
wtteapps03.usri.ibm.com
Node name: The node name is used for administration. If the node is federated, the name must be unique within the cell.
Host name: The host name is the domain name system (DNS) name (short or long) or the IP address of this computer.
InstallShield
< Back
Next >
Cancel

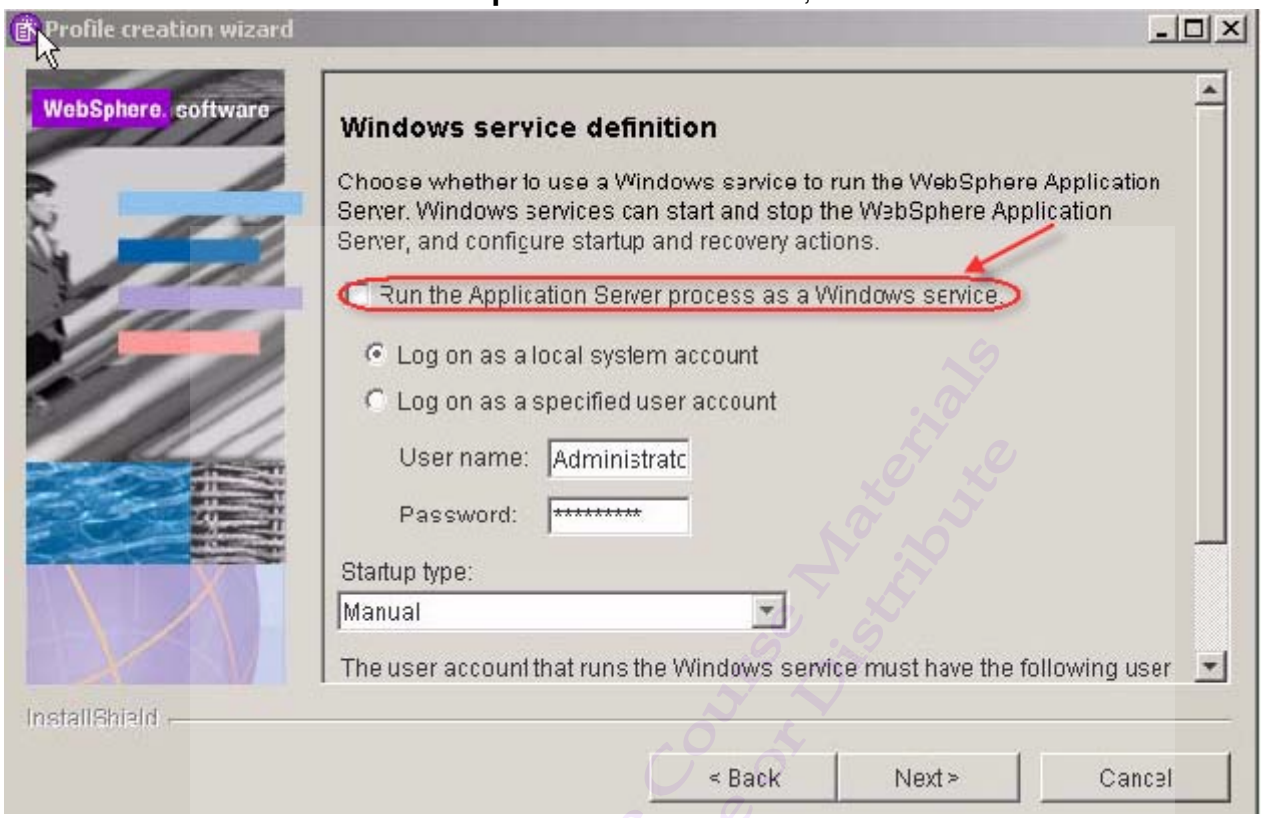
__ 18. Examine **Portal value assignment**, and Click **Next.**


Profile creation wizard
WebSphere. software
Port value assignment
The values in the following fields define the ports for the Application Server and do not conflict with other profiles in this installation. Another installation of WebSphere Application Server or other programs might use the same ports. To avoid run-time port conflicts, verify that each port value is unique.
Administrative console port (Default 9060): 9060
Administrative console secure port (Default 9043): 9043
HTTP transport port (Default 9080): 9080
HTTPS transport port (Default 9443): 9443
Bootstrap port (Default 2809): 2809
SOAP connector port (Default 8880): 8880
SAS SSL ServerAuth port (Default 9401): 9401
CSIV2 ServerAuth listener port (Default 9403): 9403
CSIV2 MultiAuth listener port (Default 9402): 9402
InstallShield
< Back
Next >
Cancel

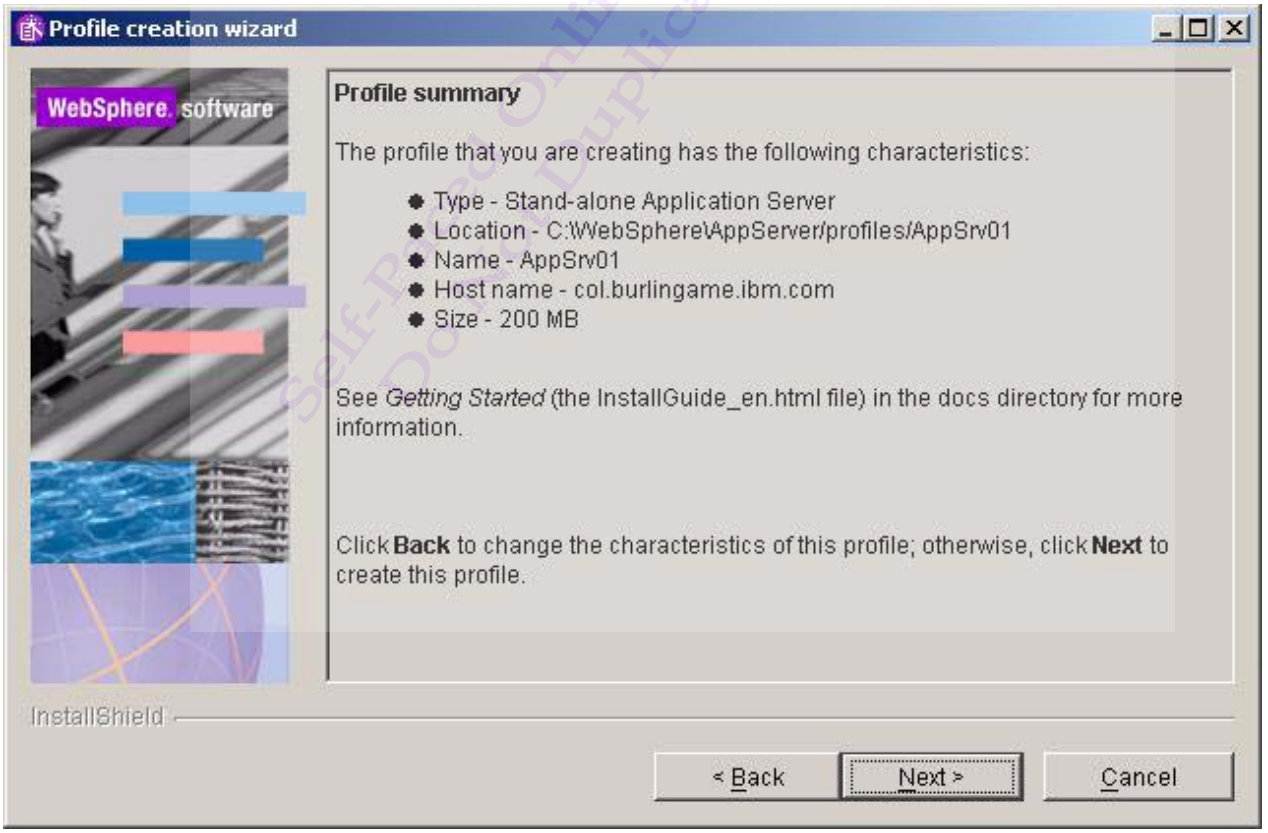
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__ 19. **Clear** the check box **Run the Application Server process as a Windows service**, and enter the Administrator **password** `wbi42@IBM`, and click **Next**.


Profile creation wizard
WebSphere. software
Windows service definition
Choose whether to use a Windows service to run the WebSphere Application Server. Windows services can start and stop the WebSphere Application Server, and configure startup and recovery actions.
Run the Application Server process as a Windows service.
Log on as a local system account
Log on as a specified user account
User name: Administratc
Password: *********
Startup type:
Manual
The user account that runs the Windows service must have the following user
InstallShield
< Back
Next >
Cancel

__ 20. Click **Next** at the **Profile summary**.

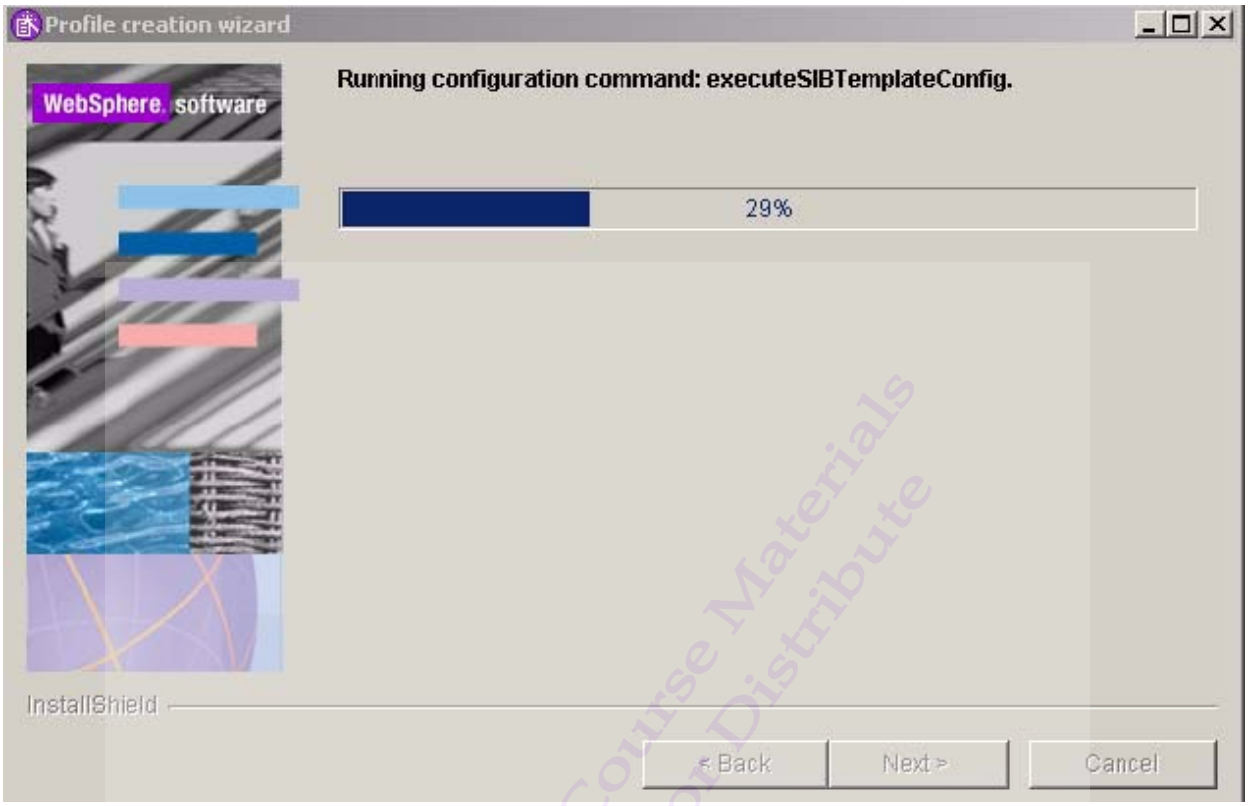

Profile creation wizard
WebSphere. software
Profile summary
The profile that you are creating has the following characteristics:
Type - Stand-alone Application Server
Location - C:\WebSphere\AppServer/profiles/AppSrv01
Name - AppSrv01
Host name - col.burlingame.ibm.com
Size - 200 MB
See Getting Started (the InstallGuide_en.html file) in the docs directory for more information.
Click Back to change the characteristics of this profile; otherwise, click Next to create this profile.
InstallShield
< Back
Next >
Cancel

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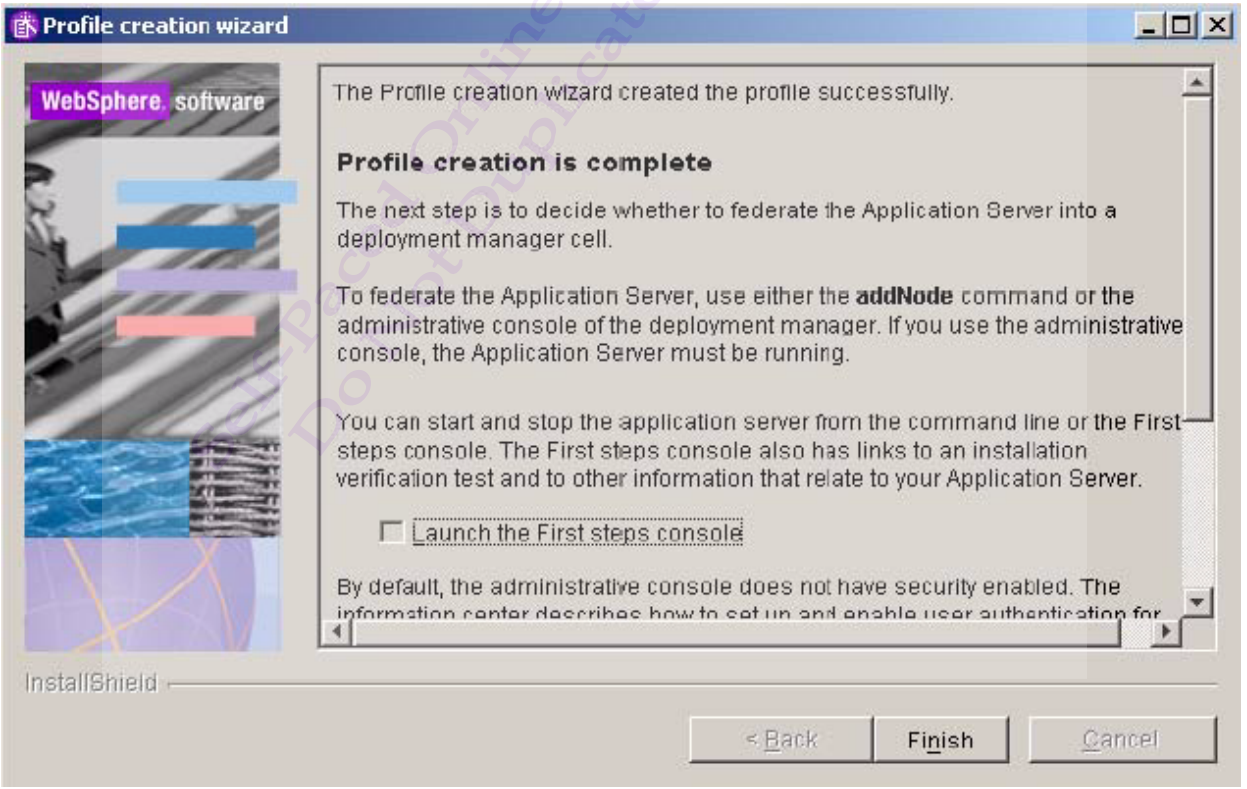
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__ 21. Profile creation starts.



__ 22. Clear the check box **Launch the First steps console**, and click **Finish**.


Profile creation wizard
WebSphere. software
The Profile creation wizard created the profile successfully.
Profile creation is complete
The next step is to decide whether to federate the Application Server into a deployment manager cell.
To federate the Application Server, use either the addNode command or the administrative console of the deployment manager. If you use the administrative console, the Application Server must be running.
You can start and stop the application server from the command line or the First steps console. The First steps console also has links to an installation verification test and to other information that relate to your Application Server.
Launch the First steps console
By default, the administrative console does not have security enabled. The
InstallShield
< Back
Finish
Cancel

__ 23. Click **x** to close the launchpad for WebSphere Application Server

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Part 2: Installing Refresh Pack 2

__ 1. Run the **backupConfig** command to back up configuration files.

Note: See *Backing up and restoring administrative configurations* in the online information center located at http://publib.boulder.ibm.com/infocenter/ws60help/index.jsp

__ a. Click **Start —> Run**

__ b. Enter `cmd`, press **Enter** to open the **command prompt**.

__ c. Enter `cd C:\Websphere\AppServer\bin`, and press **Enter**.

__ d. Enter `backupConfig MyBackup.zip`, and press **Enter**.

__ e. Wait until the backupConfig command completes, input `exit`, and press **Enter**.

__ 2. Stop all Java processes that use the IBM Developer Kit that WebSphere Application Server provides to support the Java 2 SDK that IBM provides for WebSphere Application Server products running on Windows systems.

__ 3. Stop all application server processes, the nodeagent process, the deployment manager process, and all server processes that belong to serviceable products, such as the jmsserver process, and the IBM HTTP Server. Stop all Java processes, if necessary. The product might not continue to run successfully if you install V6.0.2 while a WebSphere Application Server-related Java process is running.

__ 4. Obtain the Refresh pack 2 downloadable package through Download Director if you do not have the Refresh Pack 2 file at this point.

__ a. Go to `http://www.ibm.com/support/docview.wss?rs=180&uid=swg24009813`

__ b. Scroll down to the Download package section, and click the **DD** link for **32-bit x86 AMD/Intel AppServer**.

__ c. Click **I agree** when you are asked, then the file will be downloaded to C:\DownloadDirector.

Note: The Refresh pack 2 downloadable package, 6.0-WS-WAS-Win32-RP0000002.zip, contains both the Update Installer and the actual Refresh pack 2 maintenance package.

__ 5. Double-click to extract **6.0-WS-WAS-WinX32-RP0000002.zip** into `C:\WebSphere\AppServer`

Note: This process will extract Refresh pack 2 into `C:\WebSphere\AppServer` with an updateinstaller directory and several subdirectories. The Refresh pack 2 maintenance package is located under `C:\WebSphere\AppServer\updateinstaller\maintenance`.

Note: On Windows platforms, the pkunzip utility might not decompress the download image correctly. Use another utility (such as WinZip) to extract the image.

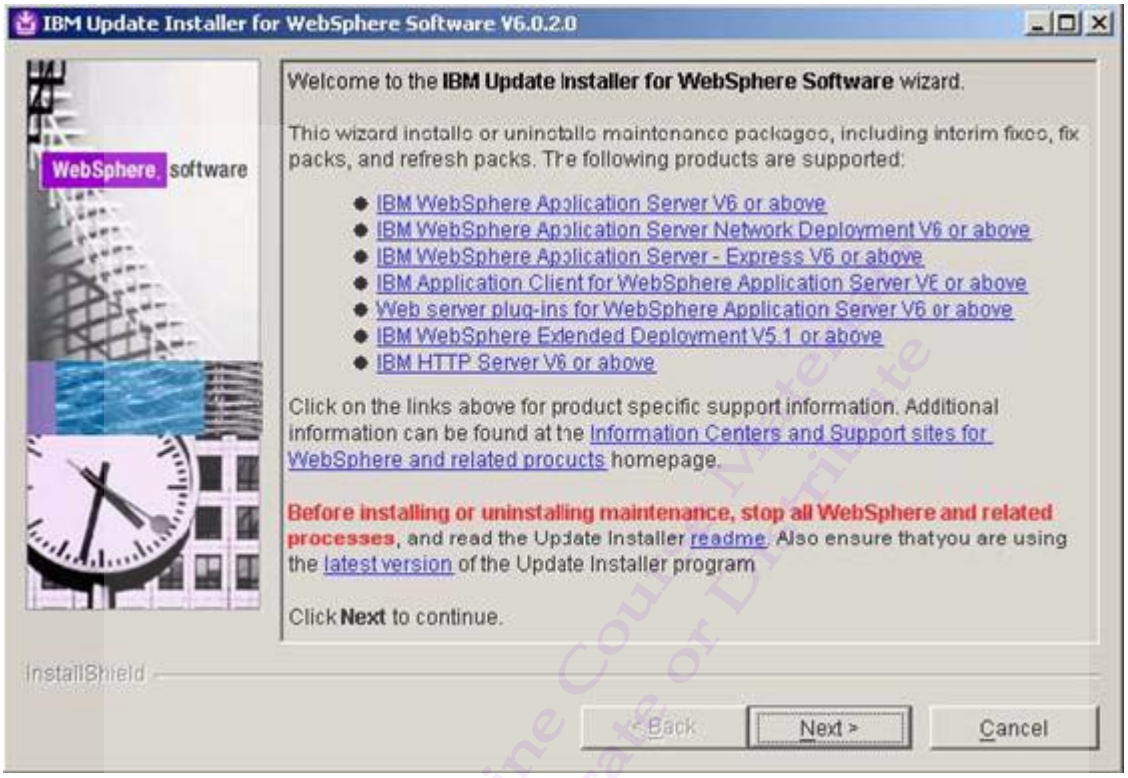
__ 6. Navigate to `C:\WebSphere\AppServer\updateinstaller\`, and double-click **update.exe**.

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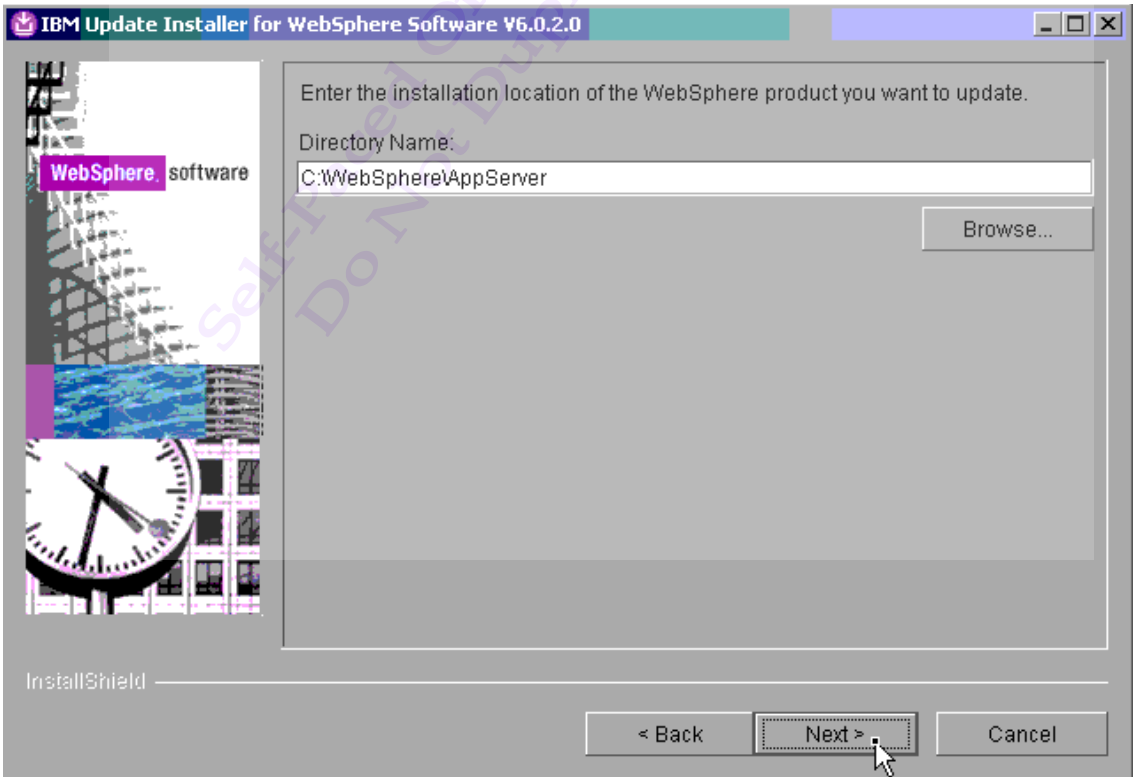
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Note: update.exe is the installation program. Refer to the `readme_updateinstaller.html` (or PDF) file for detailed information about using the **update** command.

__ 7. Click **Next** at the Welcome window.

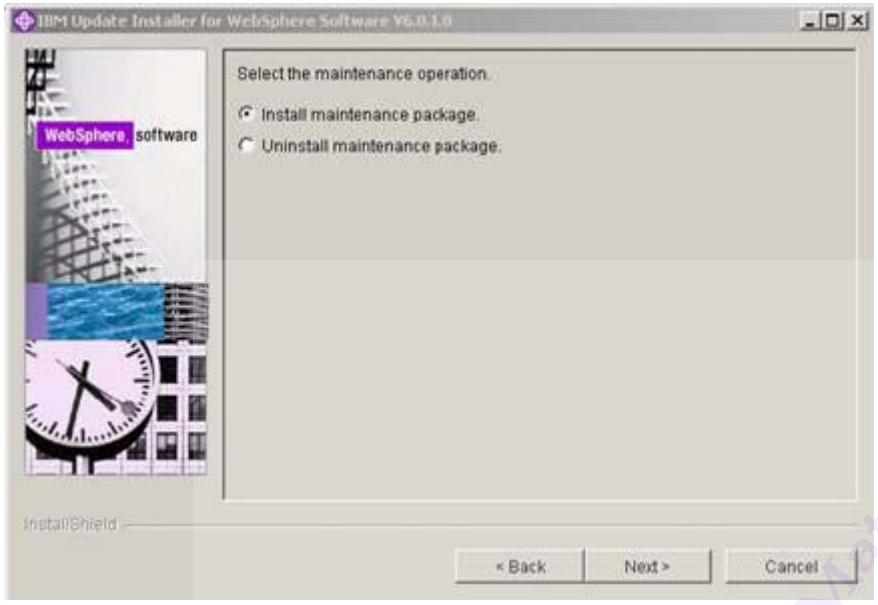

IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
Welcome to the IBM Update Installer for WebSphere Software wizard.
This wizard installs or uninstalls maintenance packages, including interim fixes, fix packs, and refresh packs. The following products are supported:
IBM WebSphere Application Server V6 or above
IBM WebSphere Application Server Network Deployment V6 or above
IBM WebSphere Application Server - Express V6 or above
IBM Application Client for WebSphere Application Server V6 or above
Web server plug-ins for WebSphere Application Server V6 or above
IBM WebSphere Extended Deployment V5.1 or above
IBM HTTP Server V6 or above
Click on the links above for product specific support information. Additional information can be found at the Information Centers and Support sites for WebSphere and related procucts homepage.
Before installing or uninstalling maintenance, stop all WebSphere and related processes, and read the Update Installer readme. Also ensure that you are using the latest version of the Update Installer program
Click Next to continue.
InstallShield
< Back
Next >
Cancel

__ 8. Verify install directory is at `C:\WebSphere\AppServer`, and click **Next**.

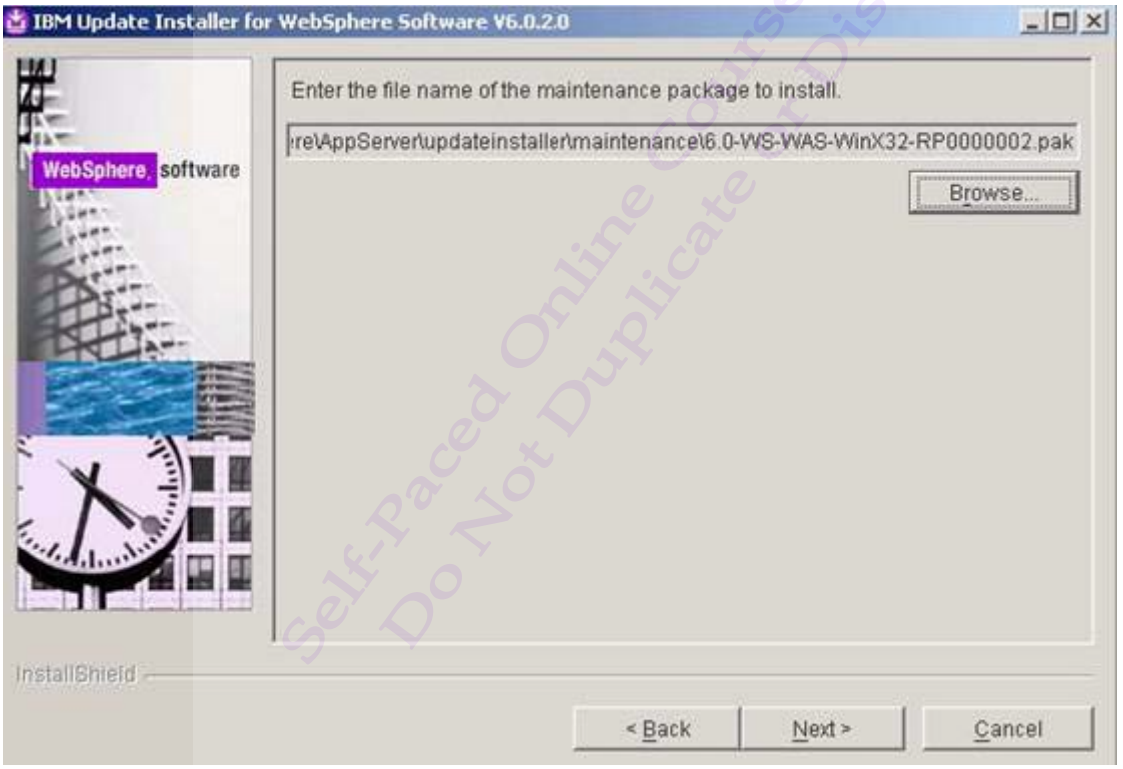


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__ 9. Verify **Install maintenance package** is selected, and click **Next**.



__ 10. Click **Next.**

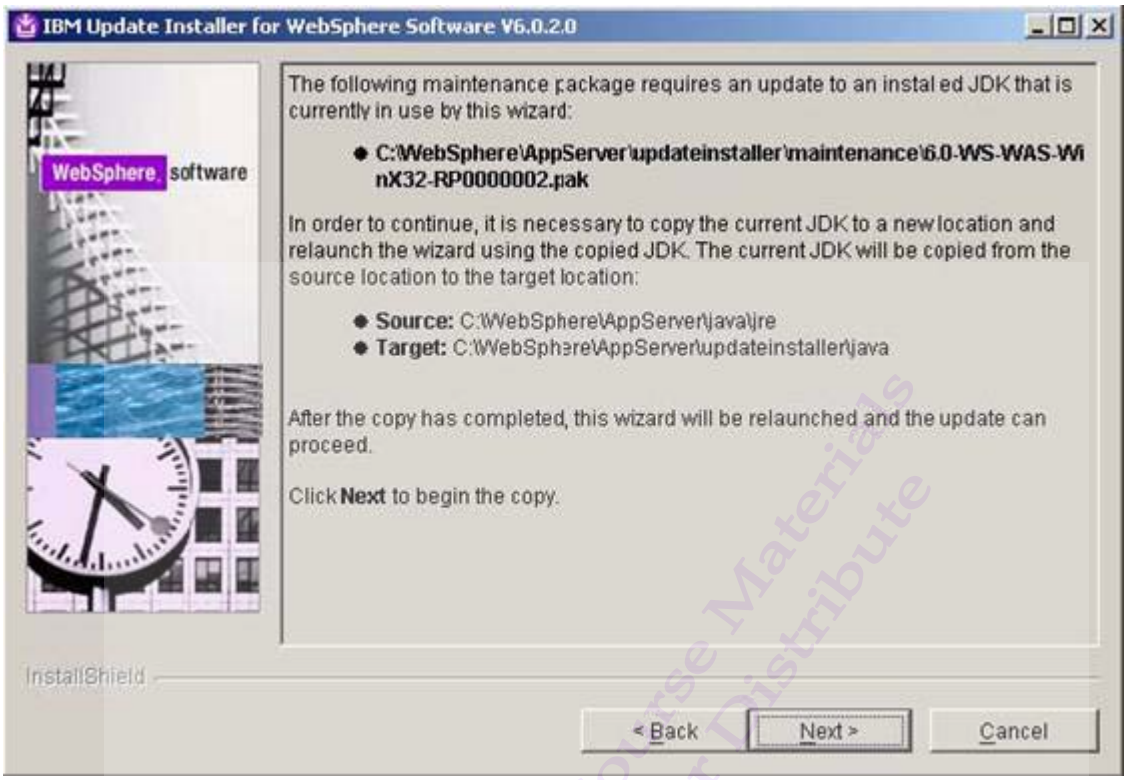


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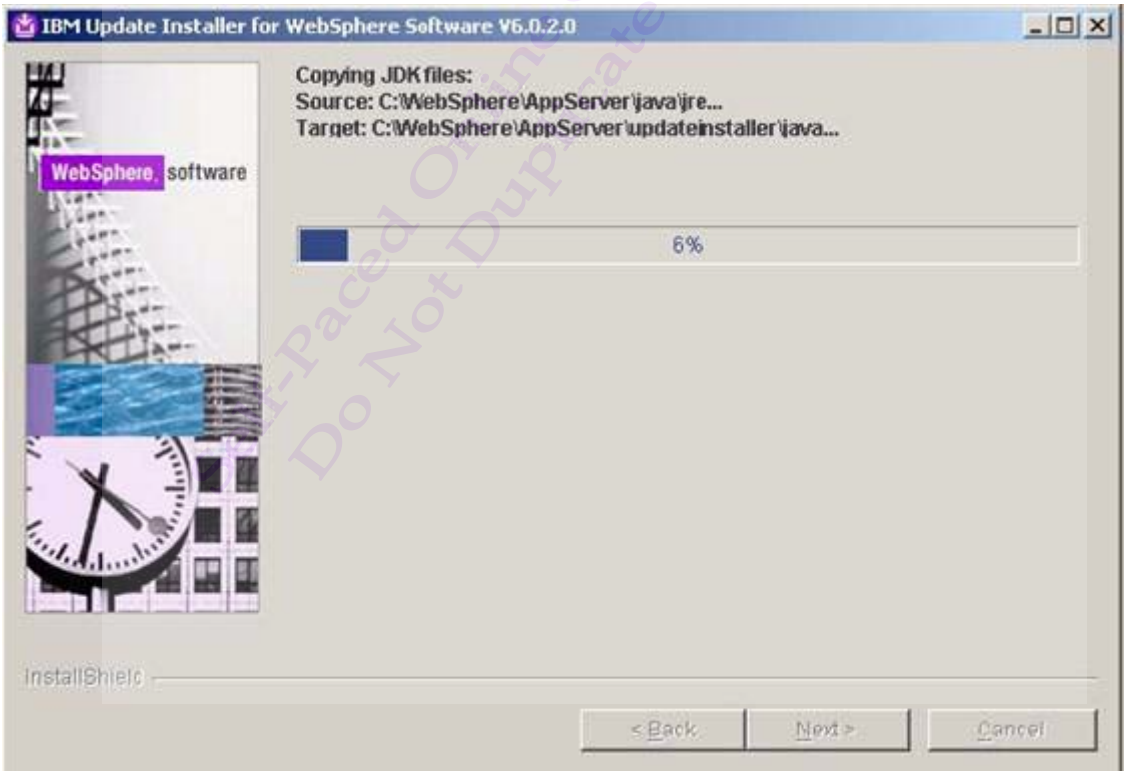
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__ 11. Click **Next**.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere software
The following maintenance package requires an update to an installed JDK that is currently in use by this wizard:
C:\WebSphere\AppServer\updateinstaller\maintenance\6.0-WS-WAS-WinX32-RP0000002.pak
In order to continue, it is necessary to copy the current JDK to a new location and relaunch the wizard using the copied JDK. The current JDK will be copied from the source location to the target location:
Source: C:\WebSphere\AppServer\java\jre
Target: C:\WebSphere\AppServer\updateinstaller\java
After the copy has completed, this wizard will be relaunched and the update can proceed.
Click Next to begin the copy.
InstallShield
< Back
Next >
Cancel

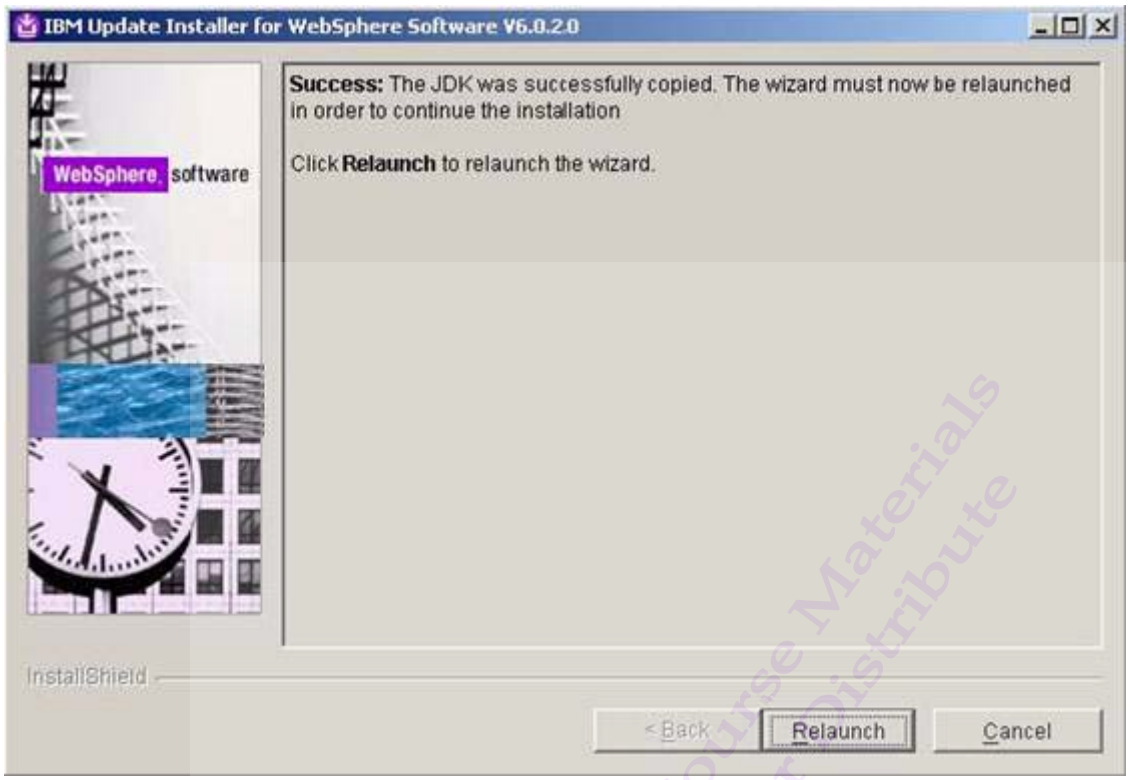
__ 12. JDK files will then be copied.



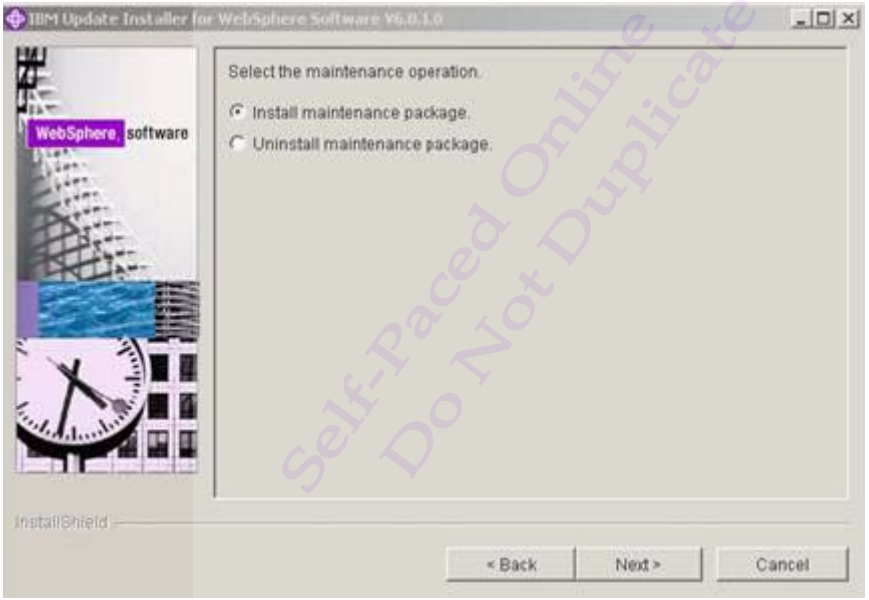
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__ 13. Click **Relaunch**.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere software
Success: The JDK was successfully copied. The wizard must now be relaunched in order to continue the installation
Click Relaunch to relaunch the wizard.
InstallShield
< Back
Relaunch
Cancel

__ 14. Verify **Install maintenance package** is selected, and click **Next**.

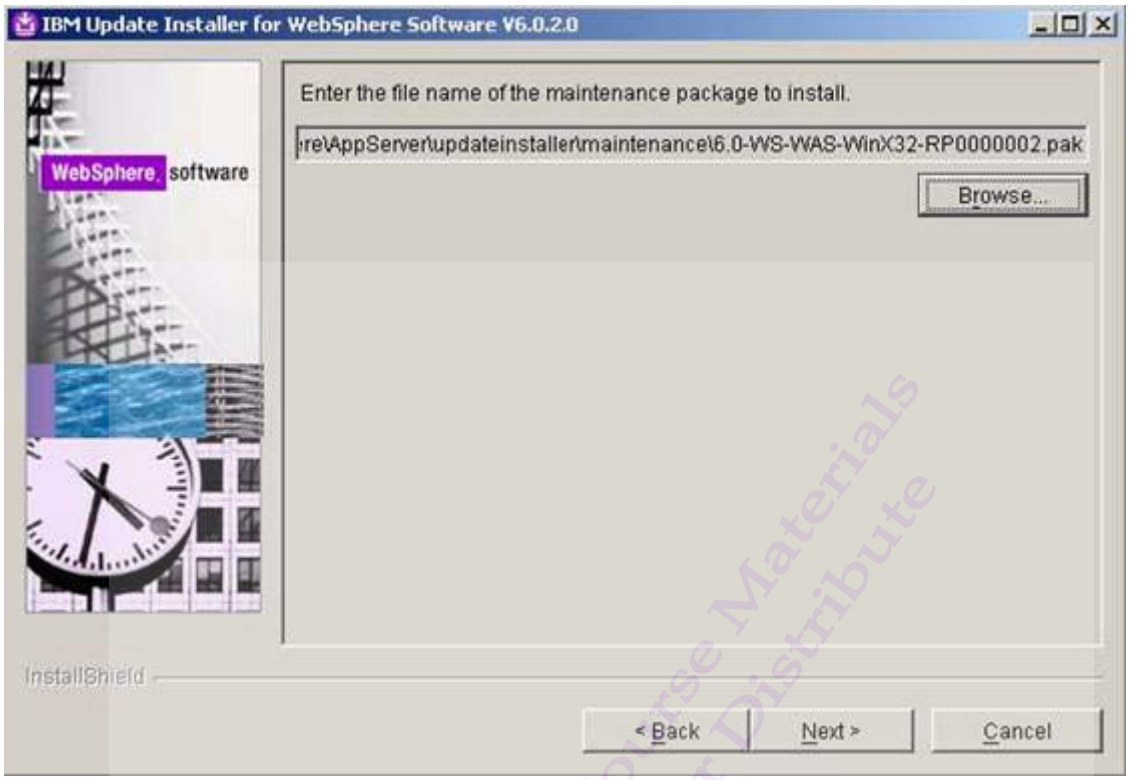


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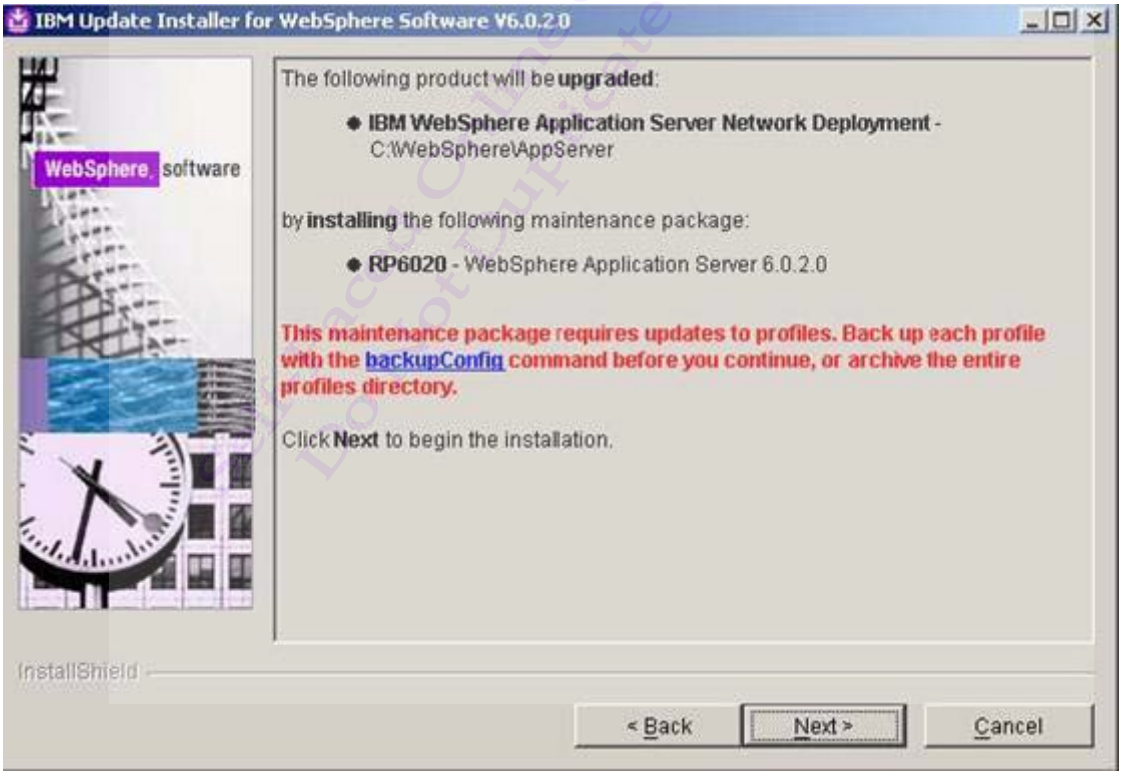
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__ 15. Click **Next.**



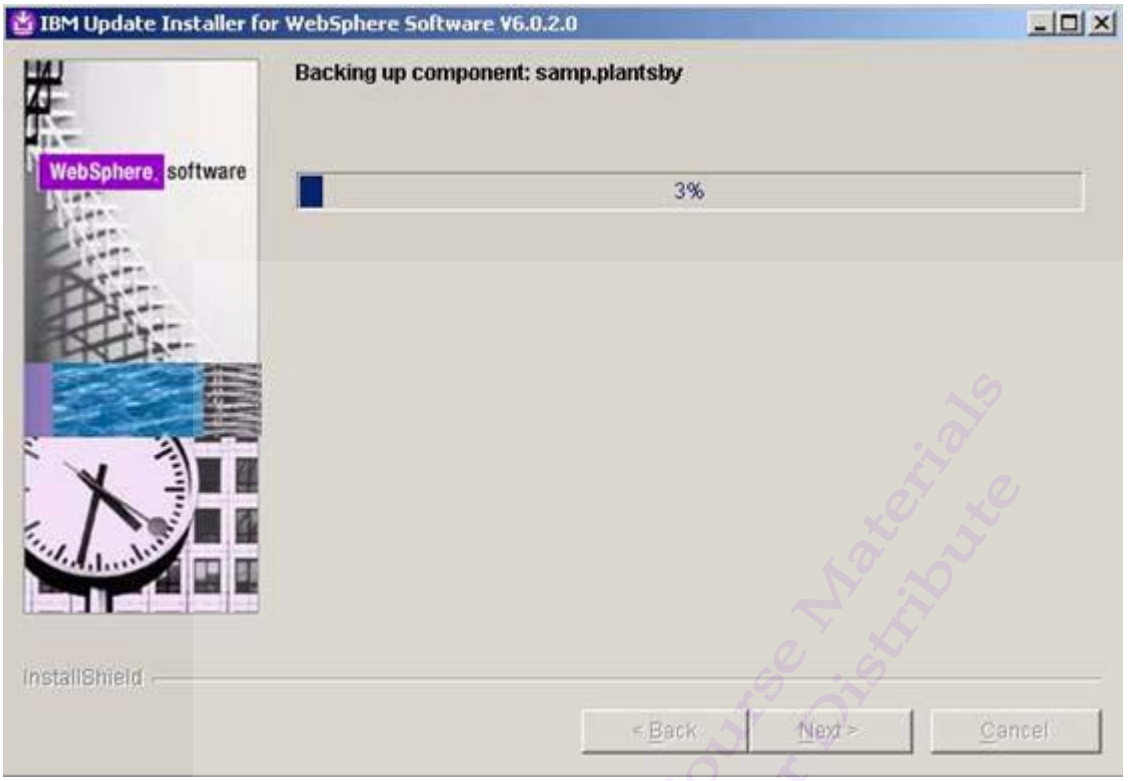
__ 16. Click **Next**.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
The following product will be upgraded:
IBM WebSphere Application Server Network Deployment - C:\WebSphere\AppServer
by installing the following maintenance package:
RP6020 - WebSphere Application Server 6.0.2.0
This maintenance package requires updates to profiles. Back up each profile with the backupConfig command before you continue, or archive the entire profiles directory.
Click Next to begin the installation.
InstallShield
< Back
Next >
Cancel

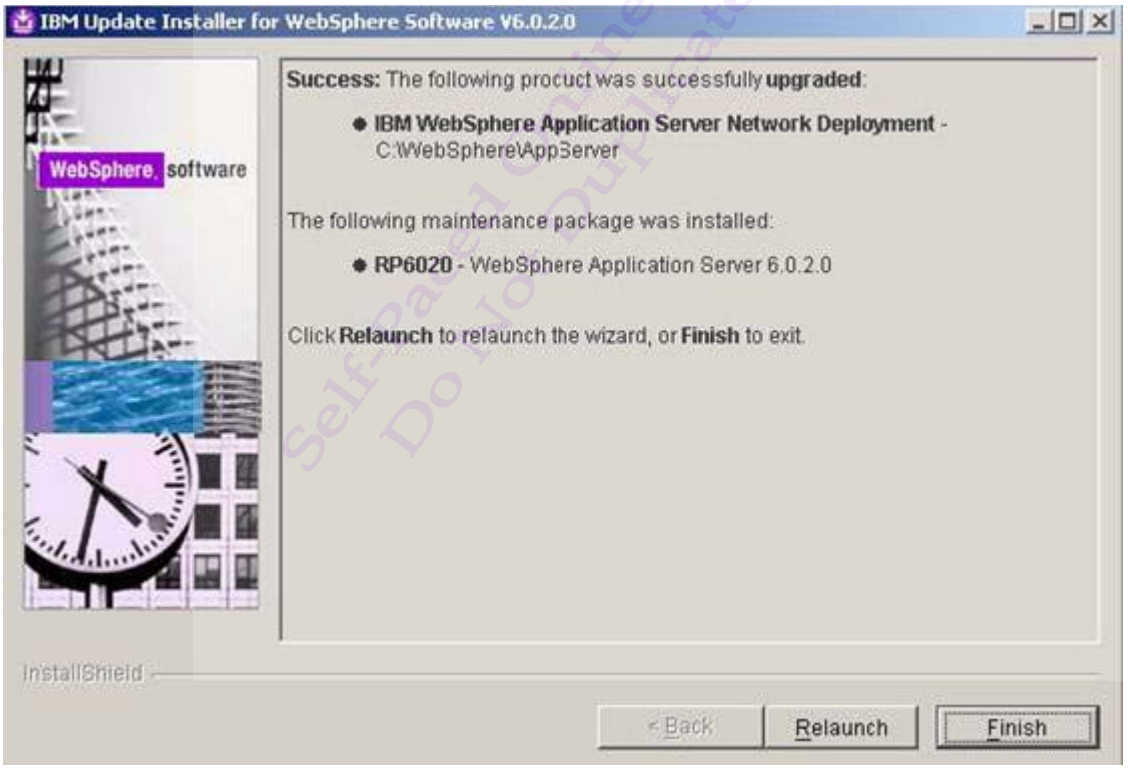
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__ 17. Click **Next**.



__ 18. Click **Finish**.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
Success: The following procuct was successfully upgraded:
IBM WebSphere Application Server Network Deployment - C:\WebSphere\AppServer
The following maintenance package was installed:
RP6020 - WebSphere Application Server 6.0.2.0
Click Relaunch to relaunch the wizard, or Finish to exit.
InstallShield
< Back
Relaunch
Finish

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Part 3: Downloading Fix Packs

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Proceed to the next part if you have the complete set of fix pack files: 6.0.2-WS-WAS-MultiOS-IFPK07351, 6.0.2-WS-WAS-MultiOS-IFPK09347, and PK11623.

__ 1. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK07351&uid=swg24010278&loc=en_US&cs=utf-8&lang=en` and scroll down to Download package section.

__ 2. Click the **DD** link for **6.0.2-WS-WAS-MultiOS-IFPK07351**, select **I agree** when asked, and the **Download Director** will start the download immediately to `C:\DownloadDirector`

__ 3. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK09347&uid=swg24010108&loc=en_US&cs=utf-8&lang=en` and scroll down to Download package section.

__ 4. Click the **DD** link for **6.0.2-WS-WAS-MultiOS-IFPK09347**, select **I agree** when asked, and the Download Director will start the download immediately to `C:\DownloadDirector`

__ 5. Browse to `http://www.ibm.com/support/docview.wss?rs=180&context=SSEQTP&dc=D430&dc=D410&dc=D420&dc=D400&dc=DB550&q1=PK11623&uid=swg24010666&loc=en_US&cs=utf-8&lang=en` and scroll down to Download package section.

__ 6. Click the **DD** link for **PK11623**, select **I agree** when asked, and the Download Director will start the download immediately to `C:\DownloadDirector`.

Part 4: Installing Fix Packs

__ 1. Copy and paste the newly downloaded fix packs to `C:\WebSphere\AppServer\updateinstaller\maintenance`

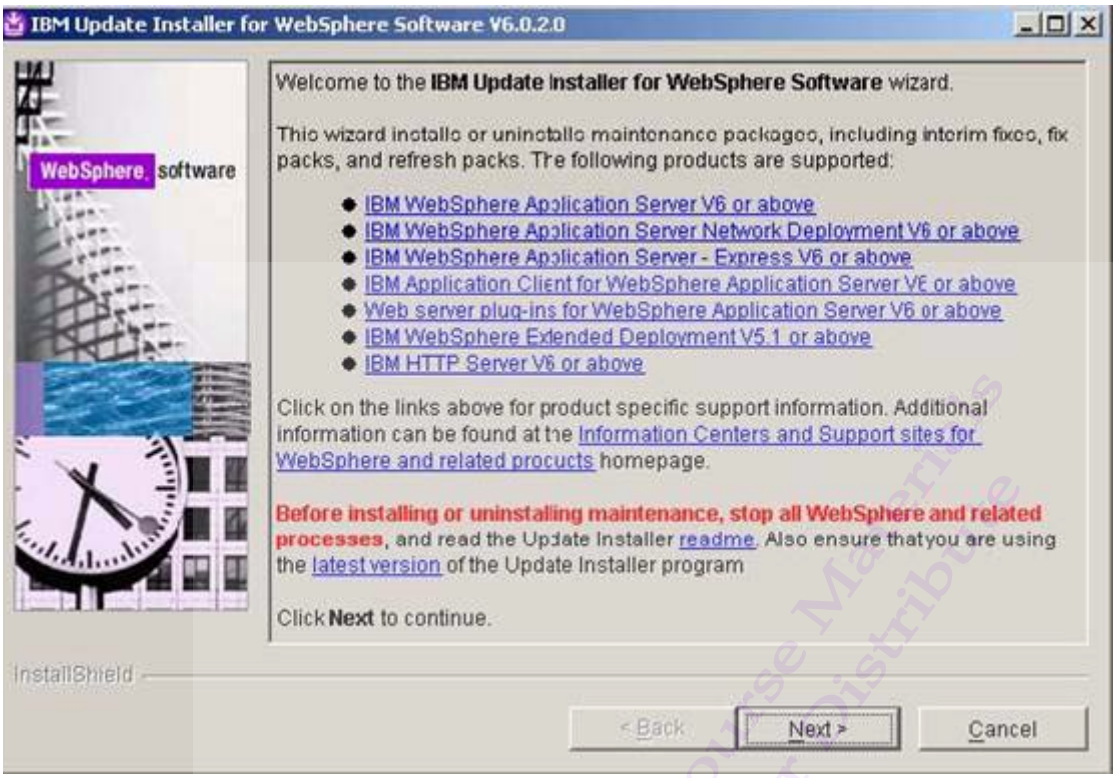
__ 2. Install fix pack **6.0.2-WS-WAS-MultiOS-IFPK07351**.

__ a. Double-click **update.exe** in `C:\WebSpher\AppServer\updateinstaller\`

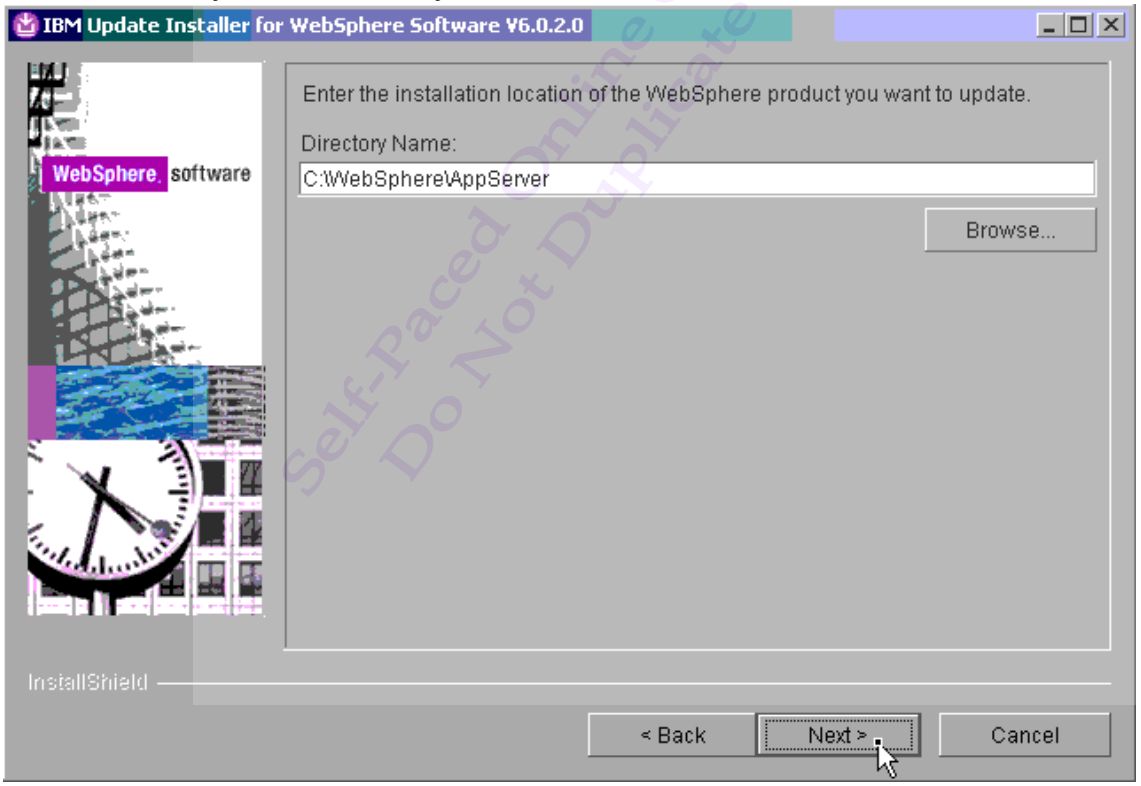
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__ b. Click **Next** to continue.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
Welcome to the IBM Update Installer for WebSphere Software wizard.
This wizard installs or uninstalls maintenance packages, including interim fixes, fix packs, and refresh packs. The following products are supported:
IBM WebSphere Application Server V6 or above
IBM WebSphere Application Server Network Deployment V6 or above
IBM WebSphere Application Server - Express V6 or above
IBM Application Client for WebSphere Application Server V6 or above
Web server plug-ins for WebSphere Application Server V6 or above
IBM WebSphere Extended Deployment V5.1 or above
IBM HTTP Server V6 or above
Click on the links above for product specific support information. Additional information can be found at the Information Centers and Support sites for WebSphere and related procucts homepage.
Before installing or uninstalling maintenance, stop all WebSphere and related processes, and read the Update Installer readme. Also ensure thatyou are using the latest version of the Update Installer program
Click Next to continue.
InstallShield
< Back
Next >
Cancel

__ c. Verify install directory is at `C:\WebSphere\AppServer` and click **Next**.

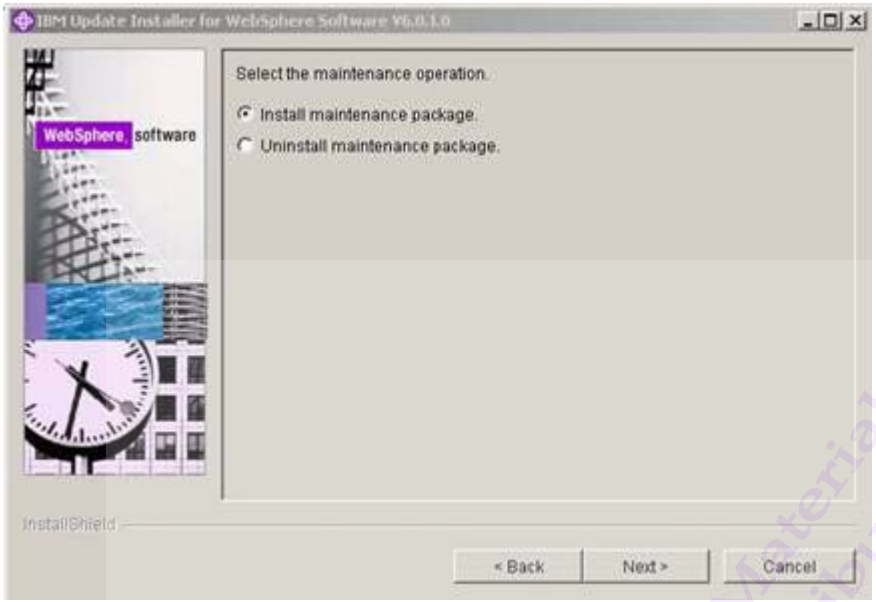


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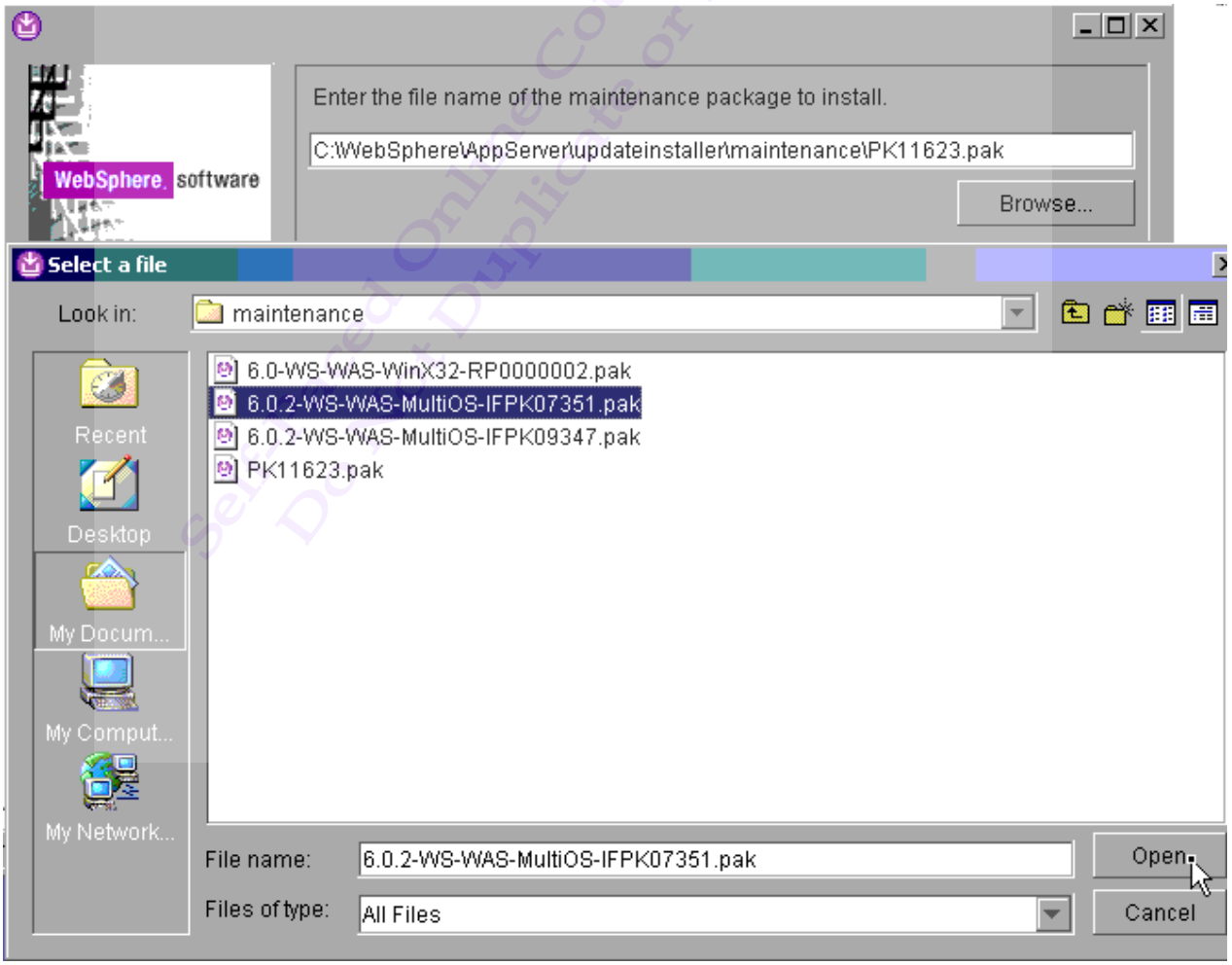
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__ d. Verify **Install maintenance package** is selected, and click **Next**.



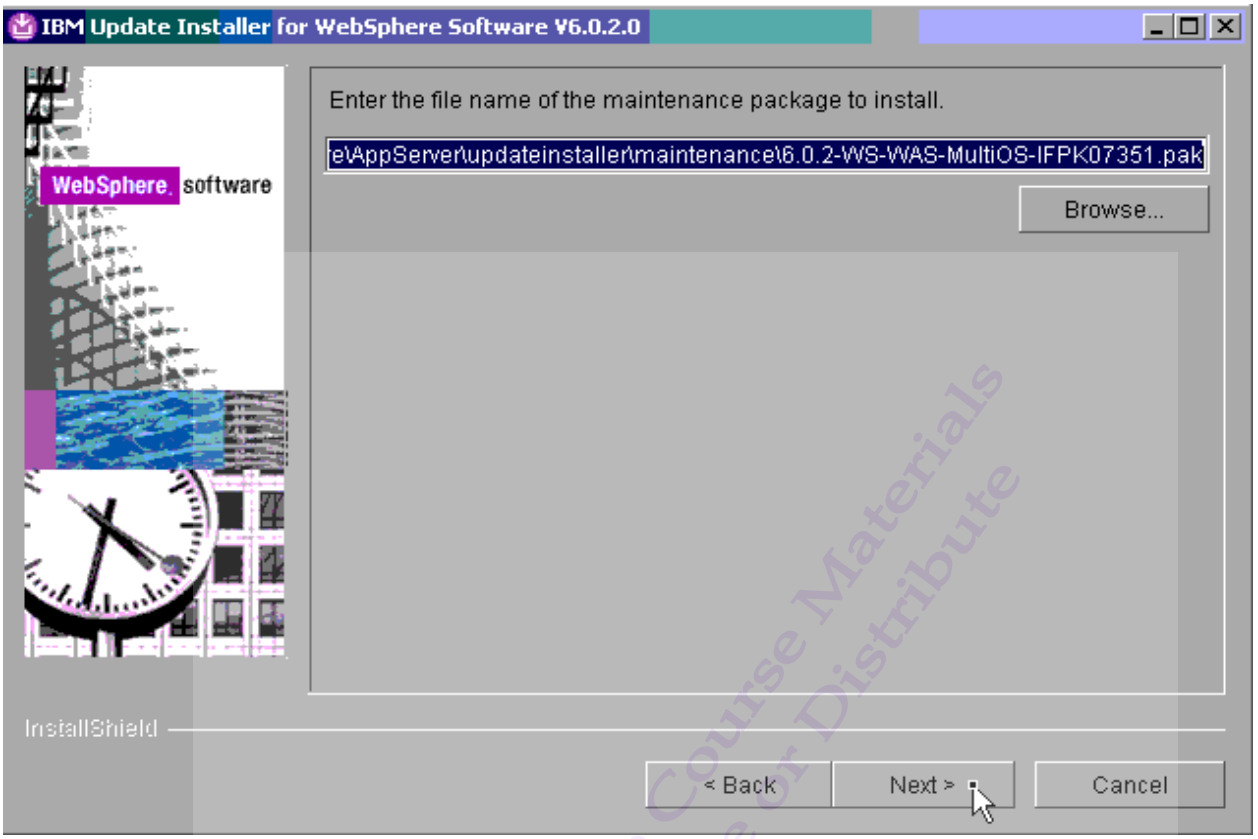
__ e. Click **Browse** to navigate to `C:\WebSphere\AppServer\updateinstaller\maintenance` and open **6.0.2-WS-WAS-MultiOS-IFPK07351.pak**



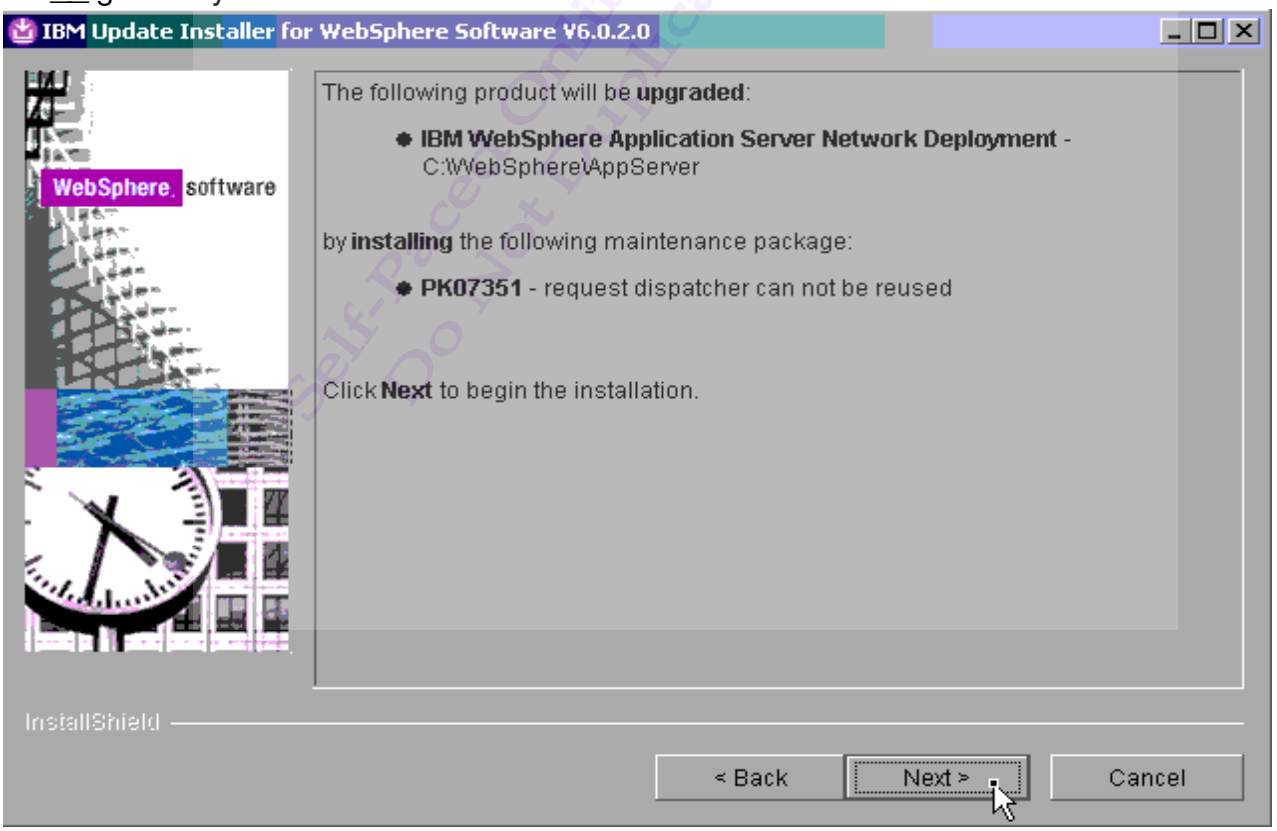
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__ f. Verify **6.0.2-WS-WAS-MultiOS-IFPK07351.pak** is selected and click **Next.**



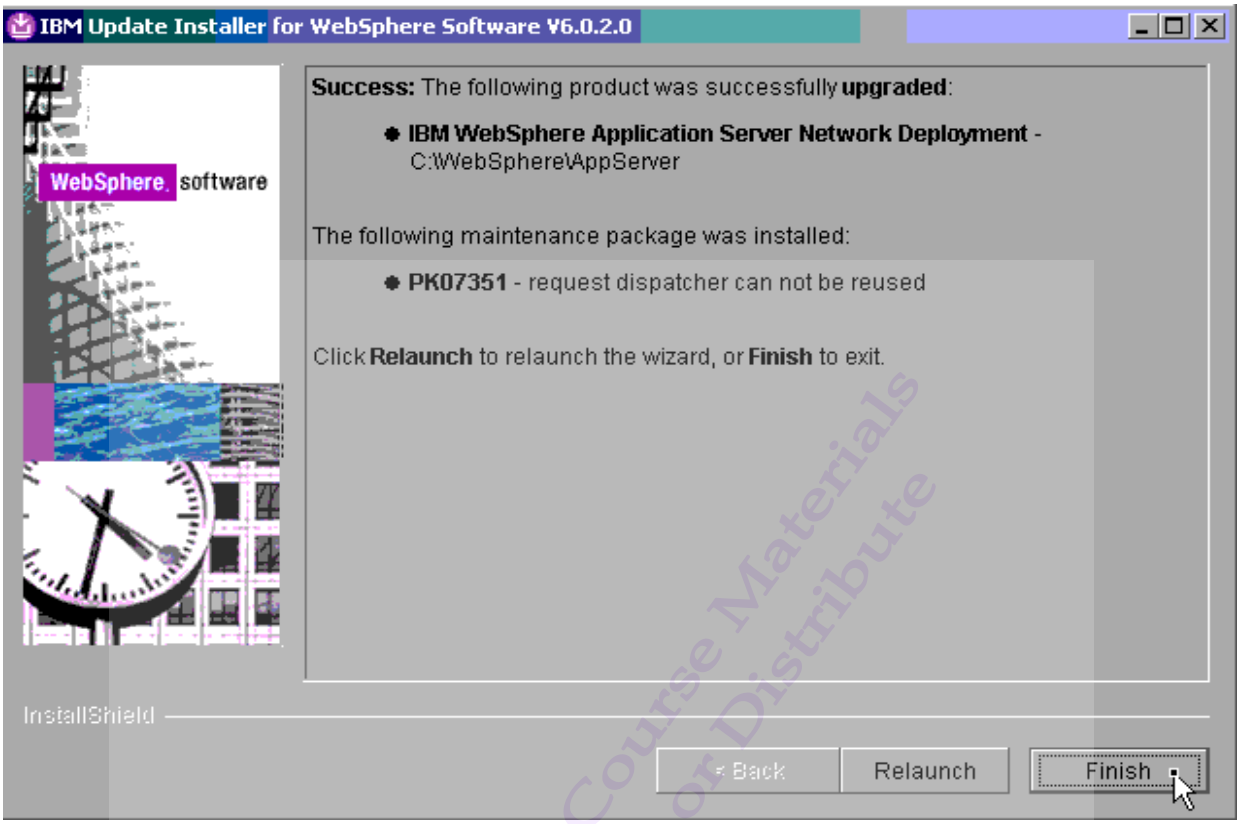
__ g. Verify the information and click **Next**. The installation will start.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
The following product will be upgraded:
IBM WebSphere Application Server Network Deployment - C:\WebSphere\AppServer
by installing the following maintenance package:
PK07351 - request dispatcher can not be reused
Click Next to begin the installation.
InstallShield
< Back
Next >
Cancel

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__ h. Click **Finish**.


IBM Update Installer for WebSphere Software V6.0.2.0
WebSphere. software
Success: The following product was successfully upgraded:
IBM WebSphere Application Server Network Deployment - C:\WebSphere\AppServer
The following maintenance package was installed:
PK07351 - request dispatcher can not be reused
Click Relaunch to relaunch the wizard, or Finish to exit.
InstallShield
< Back
Relaunch
Finish

__ 3. Repeat the stop above to install **6.0.2-WS-WAS-MultiOS-IFPK09347** and **PK11623.pak.**

END OF EXERCISE

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Appendix G. Installing WebSphere Portal

Part 1: Installing WebSphere Portal Server

This part describes how to install and set up the required WebSphere Portal Server. During this installation, the WebSphere Portal databases are created automatically and require no intervention from you. By default, WebSphere Portal uses Cloudscape for its database management system (DBMS). For production use, you will probably want to migrate the WebSphere Portal databases to a more robust DBMS.

__ 1. Navigate to `C:\DownloadDirector\`.

__ 2. Locate and extract **C82XSML.zip** into `C:\Unzip\Portal\CD1`, **C82Y1ML.zip** into `C:\Unzip\Portal\CD2`, and C82Y2ML.zip into `C:\Unzip\Portal\CD3`.

__ 3. Navigate to `C:\Unzip\Portal\CD1` and double-click **install.bat**.

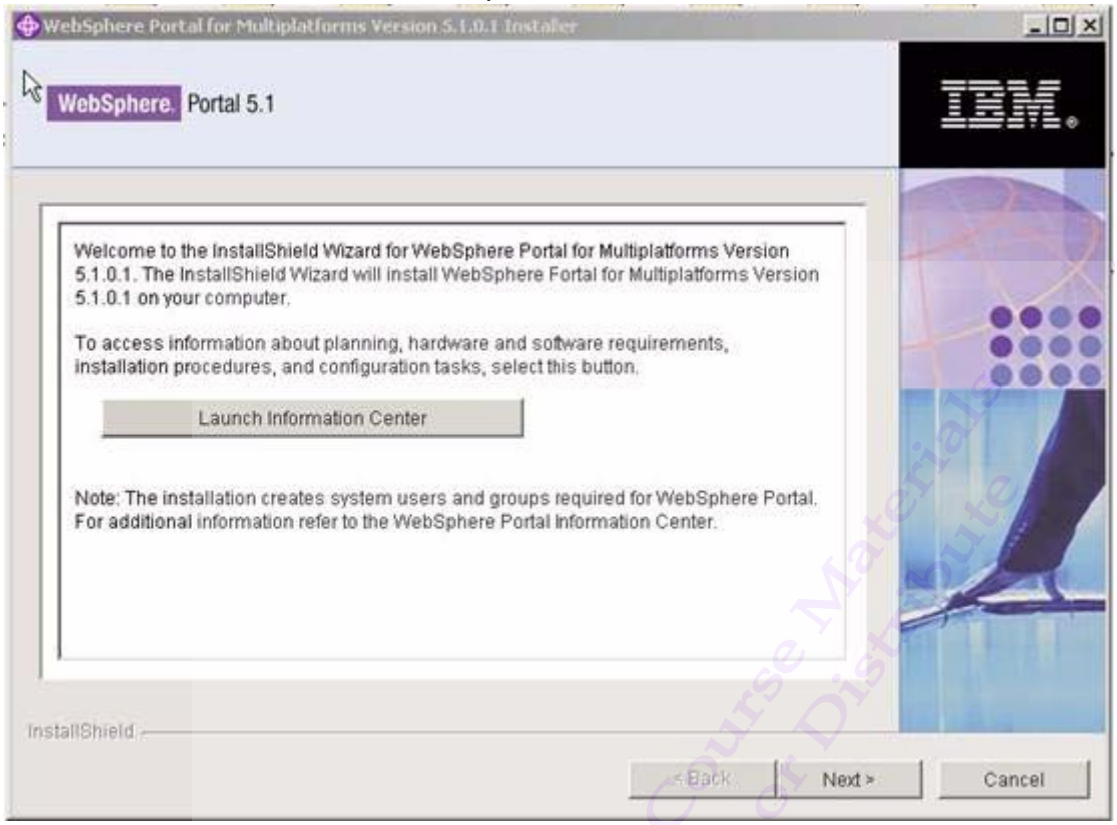
__ 4. Select **English** and click **OK**.



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__ 5. Click **Next** at the Welcome panel.


WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere. Portal 5.1
IBM.
Welcome to the InstallShield Wizard for WebSphere Portal for Multiplatforms Version 5.1.0.1. The InstallShield Wizard will install WebSphere Portal for Multiplatforms Version 5.1.0.1 on your computer.
To access information about planning, hardware and software requirements, installation procedures, and configuration tasks, select this button.
Launch Information Center
Note: The installation creates system users and groups required for WebSphere Portal. For additional information refer to the WebSphere Portal Information Center.
InstallShield
< Back
Next >
Cancel

__ 6. Select **I Accept** and click **Next**.

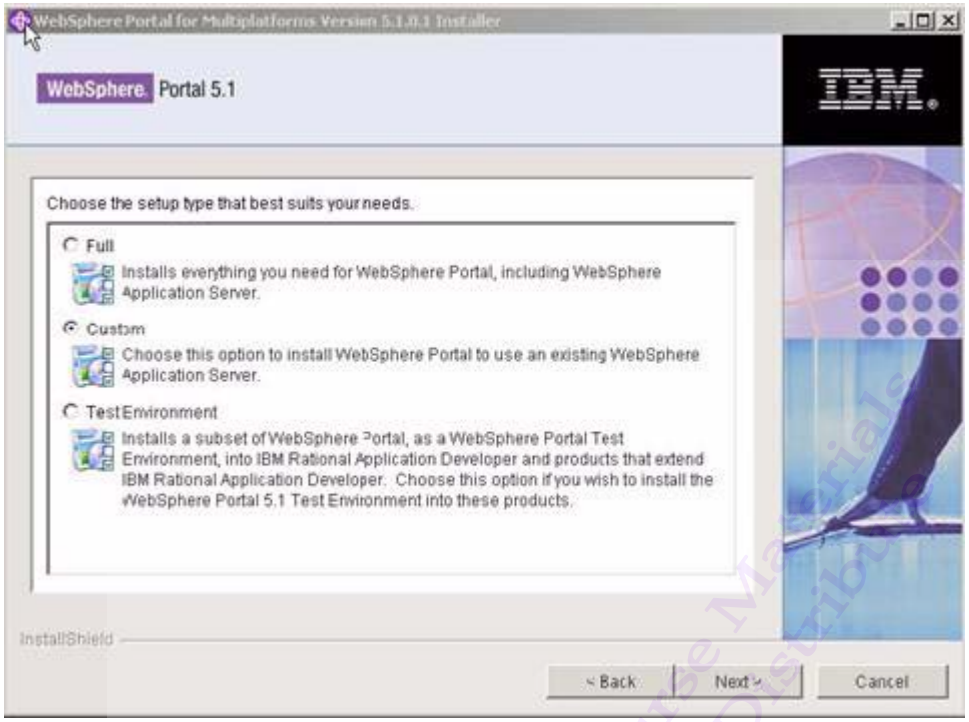

WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere. Portal 5.1
IBM.
Software License Agreement
Please read the following license agreement carefully.
International Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

__ 7. Disable any running firewall products if prompted, and then click **OK**.

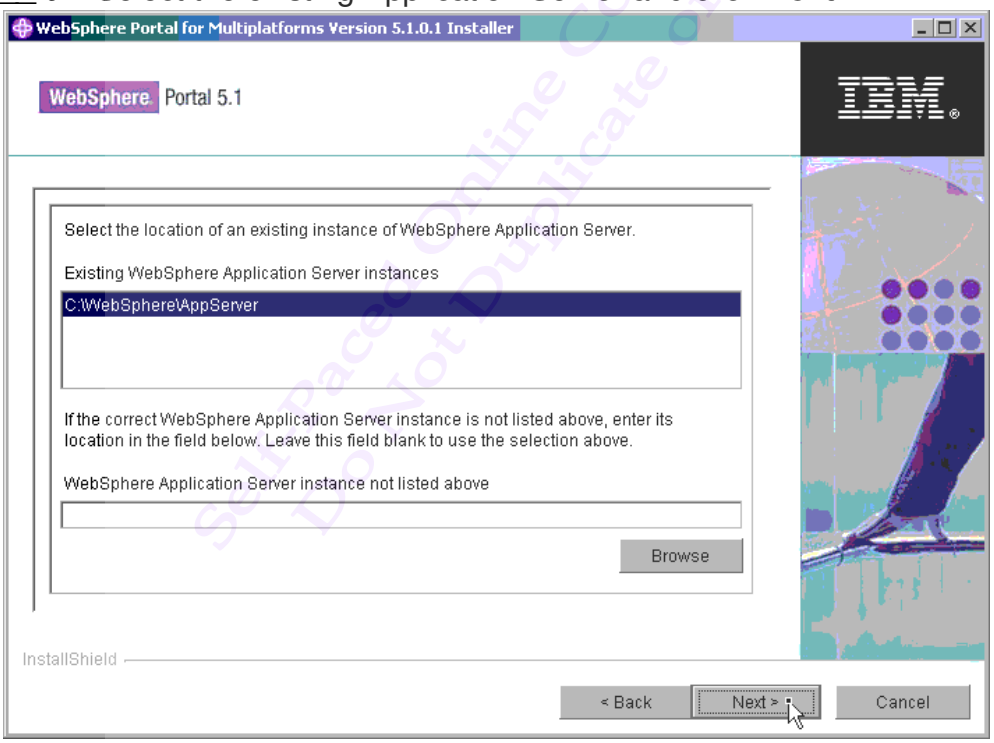
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__ 8. Select **Custom**, and click **Next**.


WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere Portal 5.1
IBM
Choose the setup type that best suits your needs.
Full
Installs everything you need for WebSphere Portal, including WebSphere Application Server.
Custom
Choose this option to install WebSphere Portal to use an existing WebSphere Application Server.
Test Environment
Installs a subset of WebSphere Portal, as a WebSphere Portal Test Environment, into IBM Rational Application Developer and products that extend IBM Rational Application Developer. Choose this option if you wish to install the WebSphere Portal 5.1 Test Environment into these products.
InstallShield
< Back
Next >
Cancel

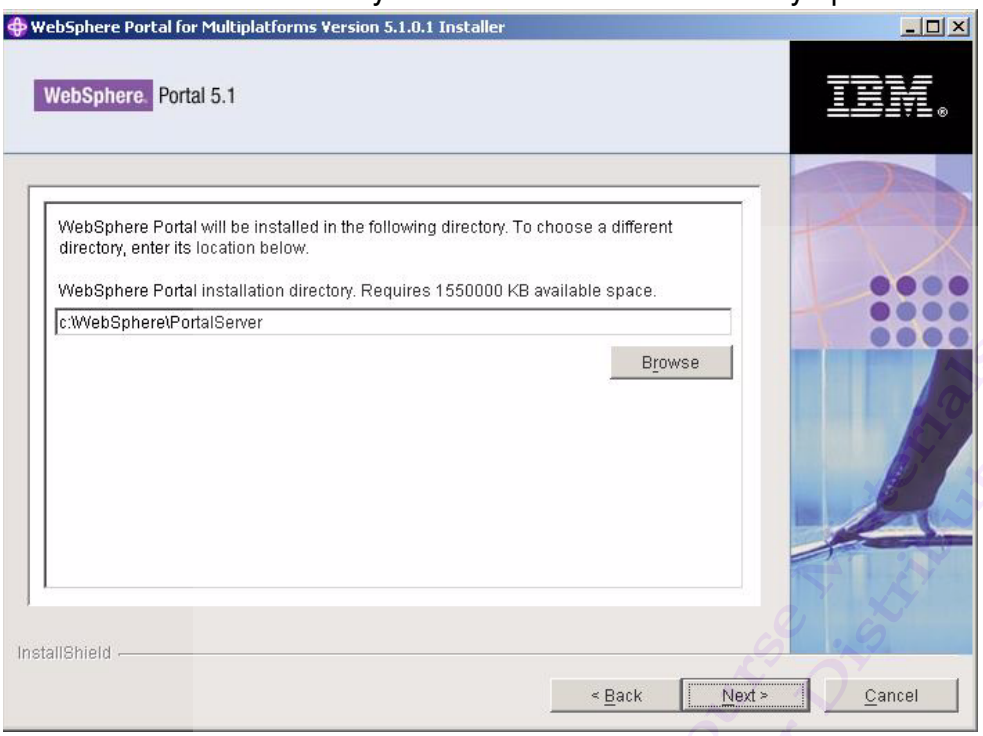
__ 9. Select the existing Application Server and click **Next**.


WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere Portal 5.1
IBM
Select the location of an existing instance of WebSphere Application Server.
Existing WebSphere Application Server instances
C:\WebSphere\AppServer
If the correct WebSphere Application Server instance is not listed above, enter its location in the field below. Leave this field blank to use the selection above.
WebSphere Application Server instance not listed above
Browse
InstallShield
< Back
Next >
Cancel

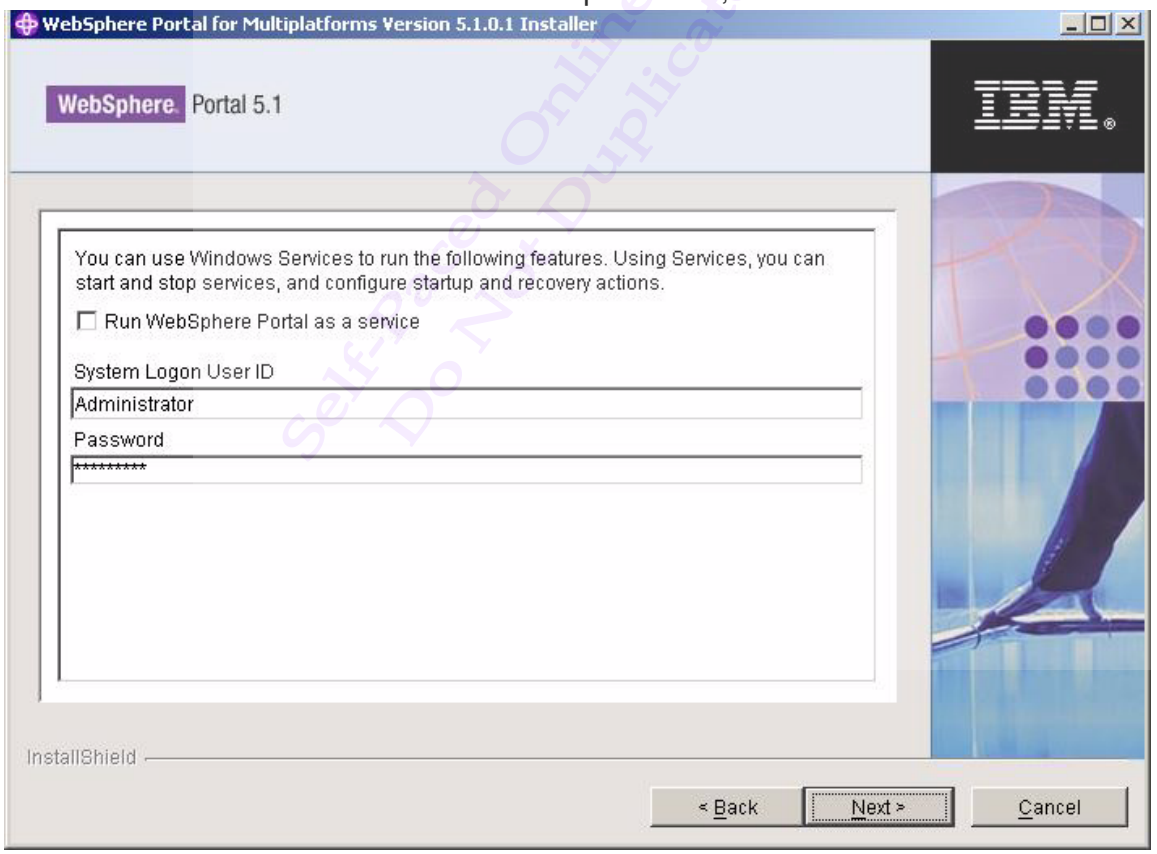
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__ 10. Verify `C:\WebSphere\PortalServer` as the installation directory, and click **Next**. Note that a directory name should not contain any spaces.


WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere Portal 5.1
IBM
WebSphere Portal will be installed in the following directory. To choose a different directory, enter its location below.
WebSphere Portal installation directory. Requires 1550000 KB available space.
c:\WebSphere\PortalServer
Browse
InstallShield
< Back
Next >
Cancel

__ 11. Verify that **Run WebSphere Portal as a service** check box is cleared, enter the Windows administrator name and password, and click **Next**.

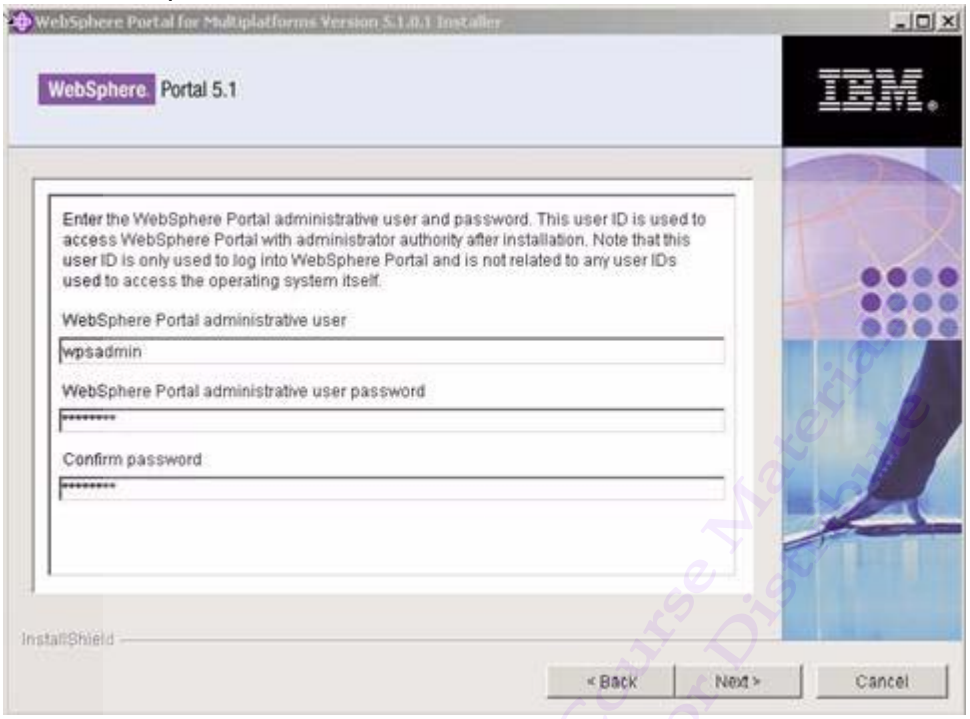

WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere Portal 5.1
IBM
You can use Windows Services to run the following features. Using Services, you can start and stop services, and configure startup and recovery actions.
Run WebSphere Portal as a service
System Logon User ID
Administrator
Password
****
InstallShield
< Back
Next >
Cancel

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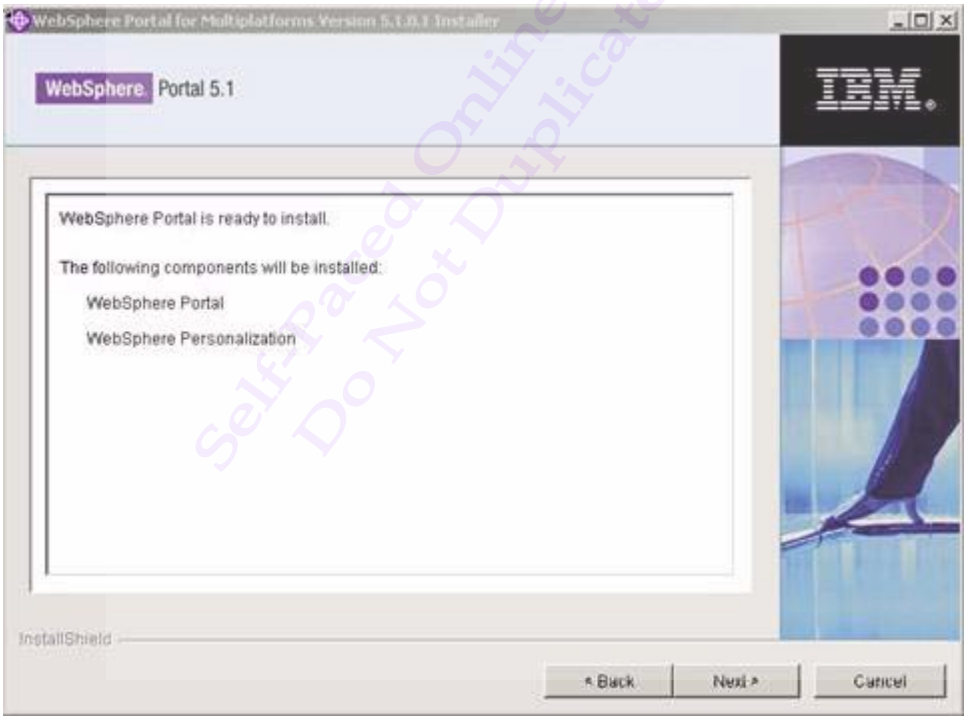
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__ 12. Enter `wpsadmin` as both administrative user and password, and click **Next.** Be sure to make a note of the administrator name and password. You will need it for Lotus Workplace installation later.


WebSphere Portal for Multiplatforms Version 5.1.0.1 Installer
WebSphere Portal 5.1
IBM.
Enter the WebSphere Portal administrative user and password. This user ID is used to access WebSphere Portal with administrator authority after installation. Note that this user ID is only used to log into WebSphere Portal and is not related to any user IDs used to access the operating system itself.
WebSphere Portal administrative user
wpsadmin
WebSphere Portal administrative user password
Confirm password
InstallShield
< Back
Next >
Cancel

__ 13. Click **Next** to start the installation.



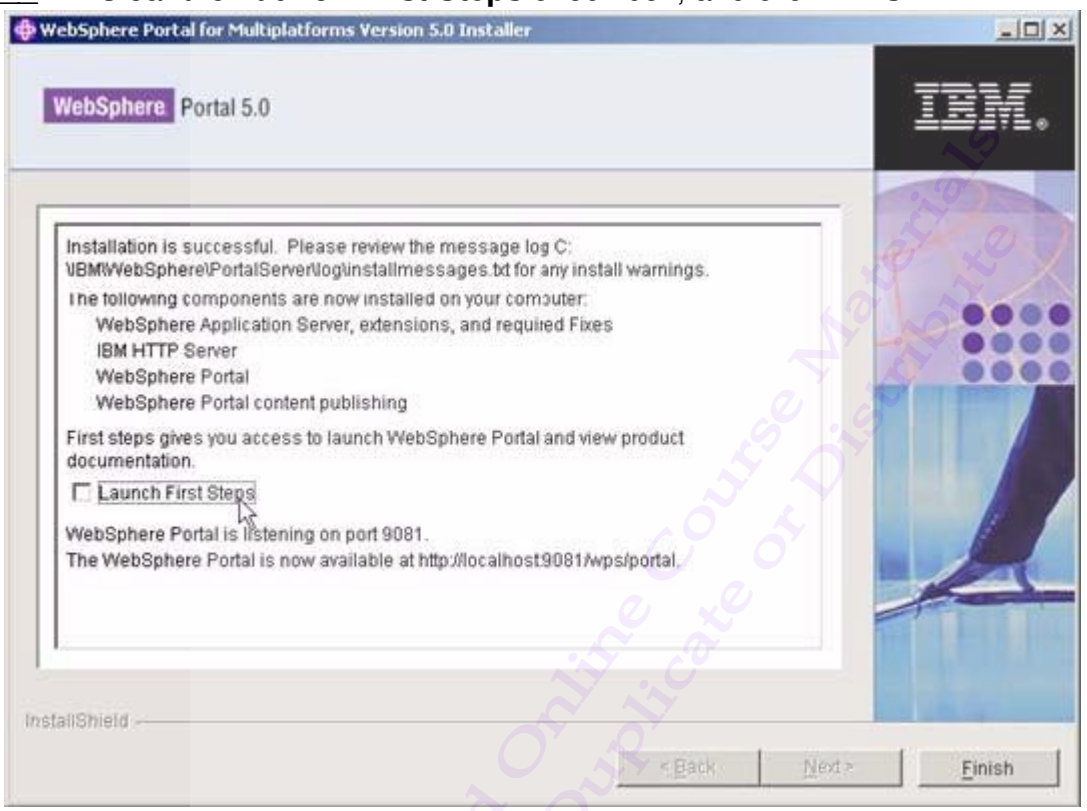
Note: The system automatically begins to install the portal server. It will install WebSphere Application Server, WebSphere Portal Server, and WebSphere Portal Content Publishing. Meanwhile it can automatically finish their configuration. The installation process may take about two hours.

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Note: During installation and setup of WebSphere Portal, you may encounter some exceptions when attributes are added to the WebSphere Member Manager (WMM). The errors indicate that the installation program attempted to insert duplicate entries into the WebSphere Portal WMM database. You can ignore these messages, as they are merely informational and do not interfere with the proper configuration of WebSphere Application Server and WebSphere Portal.

__ 14. Clear the **Launch First Steps** check box, and click **Finish**.

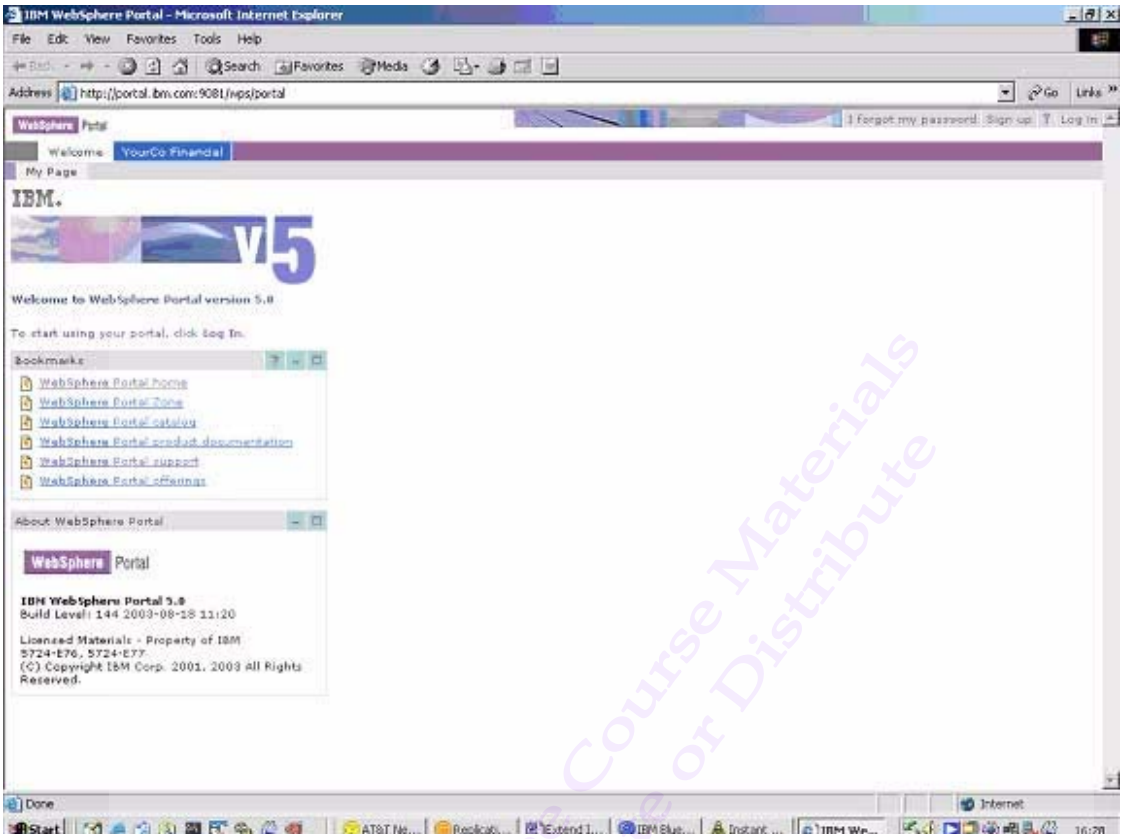

WebSphere Portal for Multiplatforms Version 5.0 Installer
WebSphere Portal 5.0
IBM
Installation is successful. Please review the message log C:
\IBM\WebSphere\PortalServer\log\installmessages.txt for any install warnings.
The following components are now installed on your computer:
WebSphere Application Server, extensions, and required Fixes
IBM HTTP Server
WebSphere Portal
WebSphere Portal content publishing
First steps gives you access to launch WebSphere Portal and view product documentation.
Launch First Steps
WebSphere Portal is listening on port 9081.
The WebSphere Portal is now available at http://localhost:9081/wps/portal.
InstallShield
< Back
Next >
Finish

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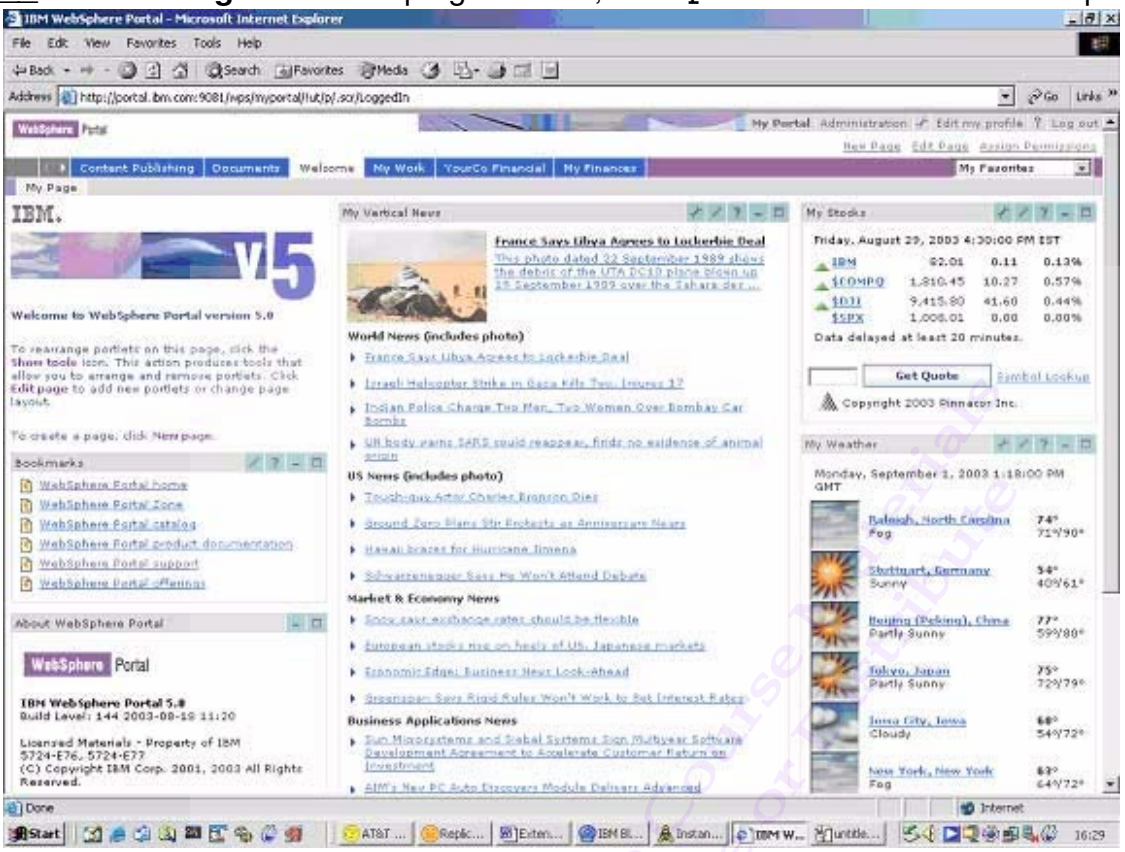
__ 15. Go to `http://wtteapps03.usri.ibm.com:9081/wps/portal`. If you see this, installation is successful



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__ 16. Click **Log in** on the top right corner; use `wpsadmin` for user name and password.


IBM WebSphere Portal - Microsoft Internet Explorer
Welcome to WebSphere Portal version 5.0
World News (includes photo)
US News (includes photo)
Market & Economy News
Business Applications News
My Stocks
My Weather

Note: if you are behind a proxy server, the portlets will not work because they which rely on external content. To fix this, search on the information center for `ContentAccess service`. Select the second item `HTTP proxy configuration` and then select the `ContentAccess service` link.

__ 17. Click **Logout** to log out and close the browser.

Part 2: Installing cumulative fix

The instructions in this section describe how to install the WebSphere Portal Version 5.1.0.2 cumulative fix on machines that are currently running WebSphere Portal V5.1.0.1.

__ 1. Download the latest cumulative fix file and WebSphere Portal update installer, If you do not have the software at this point.

__ a. Go to `http://www.ibm.com/support/docview.wss?rs=688&context=SSHRKX&dc=D400&q1=5.1.0.2&uid=swg24010518&loc=en_US&cs=utf-8&lang=en`

__ b. Click **HTTPS** link for **WebSphere Portal V5.1.0.2**.

__ c. Click **I Agree**.

__ d. Click **Sign In**, and sign in using your IBM user name and password.

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Note: This site requires all users to sign in with IBM IDs and passwords, which can be used throughout the site. You will need an IBM ID to continue. (If you have a PartnerWorld or developerWorks user ID, that is considered your IBM ID.)

__ e. Check **I agree**, and click **I confirm**.

__ f. Search for `WP_PTF_5102.zip` and `PortalUpdateInstaller.zip` and click the **Download Now** link behind them to start download.

__ 2. Navigate `C:\DownloadDirector\`

__ 3. Locate and extract **PortalUpdateInstaller.zip** to `C:\WebSphere\PortalServer\UpdateInstaller`

__ 4. Extract **WP_PTF_5102.zip** to `C:\WebSphere\PortalServer\UpdateInstaller\fixpacks`

__ 5. Set up the Java environment for the update installer.

__ a. Click **Start —> Run**

__ b. Input `cmd`; click the **Enter** key to open the command prompt.

__ c. Input `cd C:\WebSphere\AppServer\profiles\AppSrv01\bin`, and press **Enter**.

__ d. Input `setupCmdLine.bat`, and press **Enter**.

__ 6. Stop all other active application servers.

__ a. Open a command prompt, and input `cd C:\WebSphere\AppServer\profiles\AppSrv01\bin`, if you have not done so.

__ b. Input `serverStatus.bat -all` and click **Enter** to list the active application servers.

__ c. If all listed servers, server1, and WebSphere_Portal are listed as stopped, proceed to step #7.

__ d. Input `stopServer server1,` and press **Enter** to stop server1.

__ e. Input `stopServer WebSphere_Portal,` and press **Enter** to stop WebSphere_Portal.

__ 7. Change the timeout request for the Simple Object Access Protocol (SOAP) client from the default of 180 seconds to 6000 seconds.

__ a. Open a command prompt, if you have not done so.

__ b. Input `cd C:\WebSphere\AppServer\profiles\AppSrv01\properties,` and press **Enter**.

__ c. Input `notepad soap.client.props`, and press **Enter**.

__ d. Find the line `com.ibm.SOAP.requestTimeout=180`, and change 180 to 6000.

__ e. Save the file, and exit Notepad.

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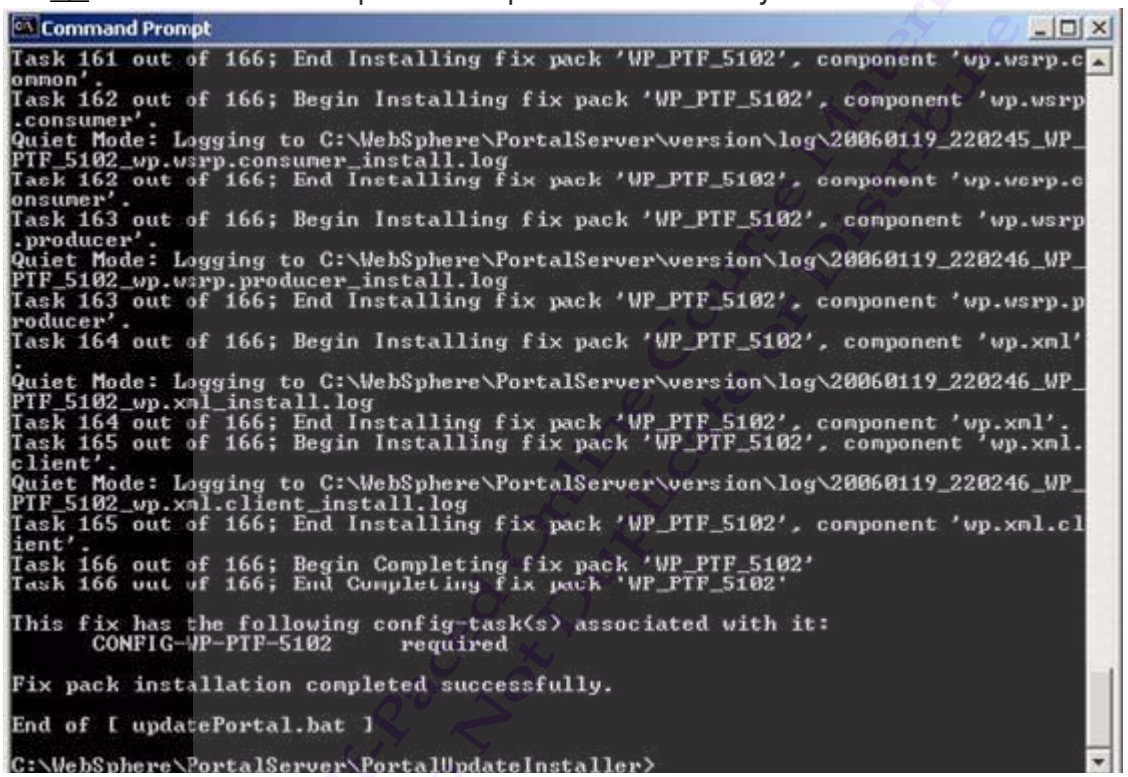
__ 8. Run the WebSphere Portal update installer to apply the cumulative fix by running the following command on one line.

__ a. Open a command prompt; input `cd C:\WebSphere\PortalServer\UpdateInstaller`, and press Enter.

__ b. Input `updatePortal -fixpack -installDir "C:\WebSphere\PortalServer" -fixpackDir "C:\WebSphere\PortalServer\UpdateInstaller\fixpacks" -install -fixpackID WP_PTF_5102`, and press **Enter**.

Note: The command window instance you run the installer from has to be the same one that you used to run *setupCmdLine* from. If you have opened a new window, make sure you run *setupCmdLine* first; then run the installer.

__ c. Wait until the update completes successfully.


Command Prompt
Task 161 out of 166; End Installing fix pack 'WP_PTF_5102', component 'wp.wsrp.common'.
Task 162 out of 166; Begin Installing fix pack 'WP_PTF_5102', component 'wp.wsrp.consumer'.
Quiet Mode: Logging to C:\WebSphere\PortalServer\version\log\20060119_220245_WP_PTF_5102_wp.wsrp.consumer_install.log
Task 162 out of 166; End Installing fix pack 'WP_PTF_5102', component 'wp.wsrp.consumer'.
Task 163 out of 166; Begin Installing fix pack 'WP_PTF_5102', component 'wp.wsrp.producer'.
Quiet Mode: Logging to C:\WebSphere\PortalServer\version\log\20060119_220246_WP_PTF_5102_wp.wsrp.producer_install.log
Task 163 out of 166; End Installing fix pack 'WP_PTF_5102', component 'wp.wsrp.producer'.
Task 164 out of 166; Begin Installing fix pack 'WP_PTF_5102', component 'wp.xml'.
Quiet Mode: Logging to C:\WebSphere\PortalServer\version\log\20060119_220246_WP_PTF_5102_wp.xml_install.log
Task 164 out of 166; End Installing fix pack 'WP_PTF_5102', component 'wp.xml'.
Task 165 out of 166; Begin Installing fix pack 'WP_PTF_5102', component 'wp.xml.client'.
Quiet Mode: Logging to C:\WebSphere\PortalServer\version\log\20060119_220246_WP_PTF_5102_wp.xml.client_install.log
Task 165 out of 166; End Installing fix pack 'WP_PTF_5102', component 'wp.xml.client'.
Task 166 out of 166; Begin Completing fix pack 'WP_PTF_5102'
Task 166 out of 166; End Completing fix pack 'WP_PTF_5102'
This fix has the following config-task(s) associated with it:
CONFIG-WP-PTF-5102 required
Fix pack installation completed successfully.
End of [updatePortal.bat]
C:\WebSphere\PortalServer\PortalUpdateInstaller>

__ 9. Jump to step 10 if WebSphere Portal is not federated into deployment manager.

__ a. Restart WebSphere Portal using deployment manager's Administration Console to start WebSphere Portal.

__ 10. If WebSphere Portal is not federated into the deployment manager, restart WebSphere Portal by entering the following commands in the command prompt.

__ a. Input `cd C:\WebSphere\AppServer\profiles\AppSrv01\bin`,and press **Enter**.

__ b. Input `stopServer.bat WebSphere_Portal` and press **Enter**.

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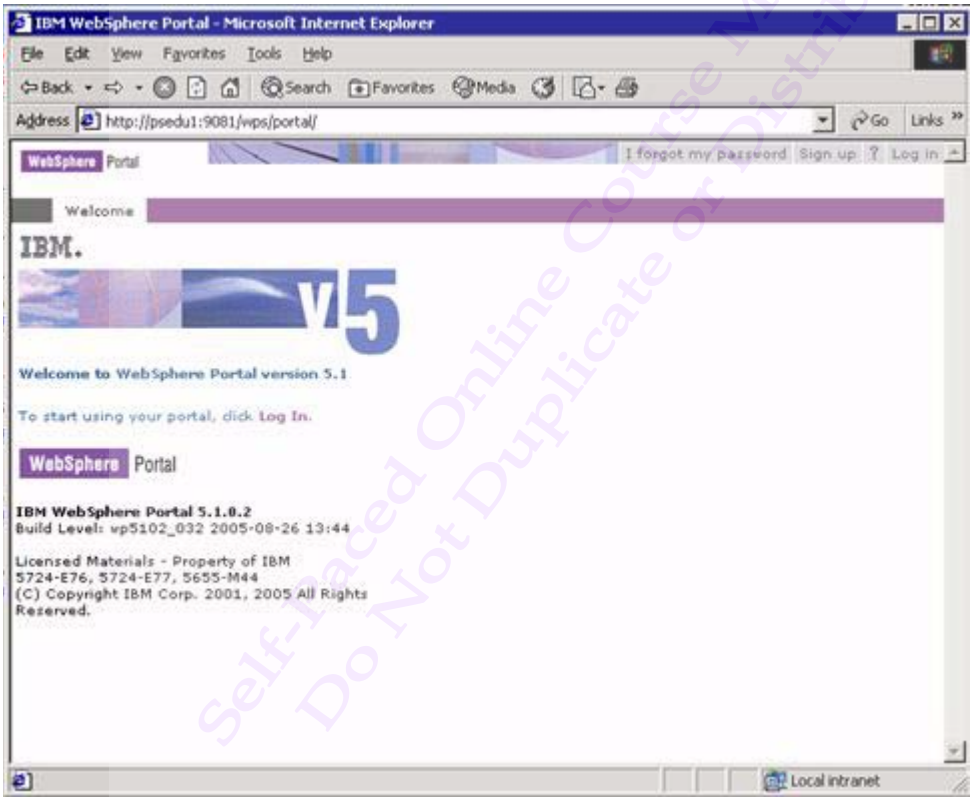
__ c. Input `startServer.bat WebSphere_Portal`, and press **Enter**.

```
:\IBM\WebSphere\AppServer\profiles\AppSrv01\bin>stopServer.bat WebSphere_Portal
-user wpsadmin -password wpsadmin
DMU0116I: Tool information is being logged in file
          C:\IBM\WebSphere\AppServer\profiles\AppSrv01\logs\WebSphere_Portal\st
pServer.log
DMU0128I: Starting tool with the AppSrv01 profile
DMU3100I: Reading configuration for server: WebSphere_Portal
DMU3201I: Server stop request issued. Waiting for stop status.
DMU4000I: Server WebSphere_Portal stop completed.

:\IBM\WebSphere\AppServer\profiles\AppSrv01\bin>startServer.bat WebSphere_Porta
l
DMU0116I: Tool information is being logged in file
          C:\IBM\WebSphere\AppServer\profiles\AppSrv01\logs\WebSphere_Portal\st
rtServer.log
DMU0128I: Starting tool with the AppSrv01 profile
DMU3100I: Reading configuration for server: WebSphere_Portal
DMU3200I: Server launched. Waiting for initialization status.
DMU3000I: Server WebSphere_Portal open for e-business; process id is 1996
```

Part 3: Verifying the fix is completed successfully

__ 1. Browse to `http://wtteapps03.usri.ibm.com:9081/wps/portal`


IBM WebSphere Portal - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address http://pseduı:9081/wps/portal/
WebSphere Portal
I forgot my password Sign up Log in
Welcome
IBM.
V5
Welcome to WebSphere Portal version 5.1
To start using your portal, click Log In.
WebSphere Portal
IBM WebSphere Portal 5.1.0.2
Build Level: wp5102_032 2005-08-26 13:44
Licensed Materials - Property of IBM
5724-E76, 5724-E77, 5655-M44
(C) Copyright IBM Corp. 2001, 2005 All Rights Reserved.
Local intranet

__ 2. Verify the version as **IBM WebSphere Portal 5.1.0.2**, Build Level: **wp5102_032 2005-08-26 13:44**

__ 3. Log in using ID `wpsadmin` and password `wpsadmin`

__ 4. Log out.

END OF EXERCISE

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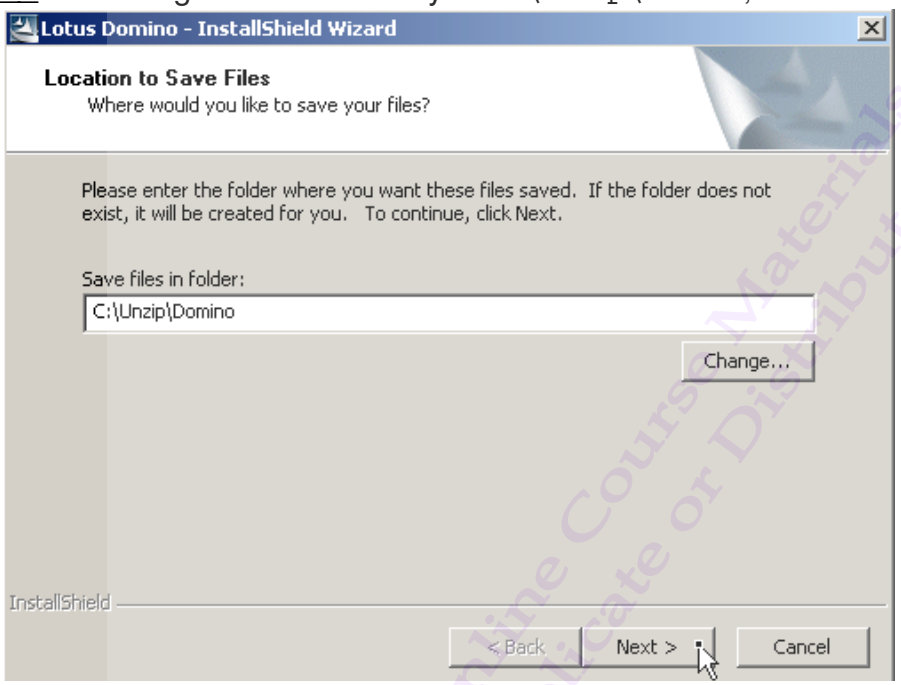
Appendix H. Installing Lotus Domino Server

Part 1: Installing Domino Server

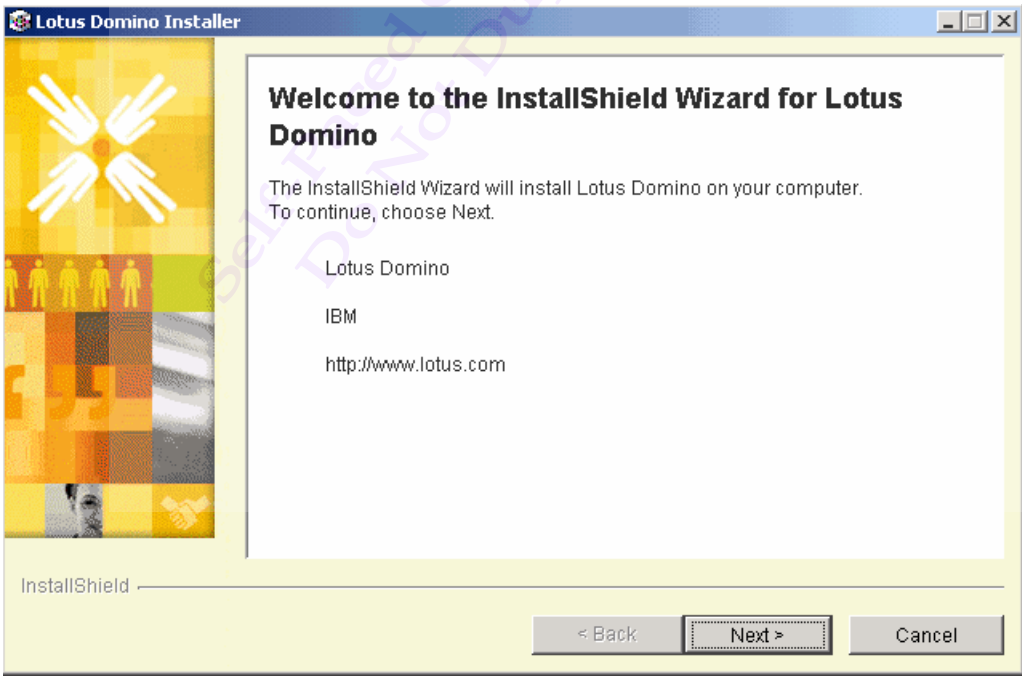
__ 1. Navigate to `C:\DownloadDirector`.

__ 2. Locate and double-click **c88r6na.exe**.

__ 3. Change the file directory to `C:\Unzip\Domino`, and click **Next**.


Lotus Domino - InstallShield Wizard
Location to Save Files
Where would you like to save your files?
Please enter the folder where you want these files saved. If the folder does not exist, it will be created for you. To continue, click Next.
Save files in folder:
C:\Unzip\Domino
Change...
InstallShield
< Back
Next >
Cancel

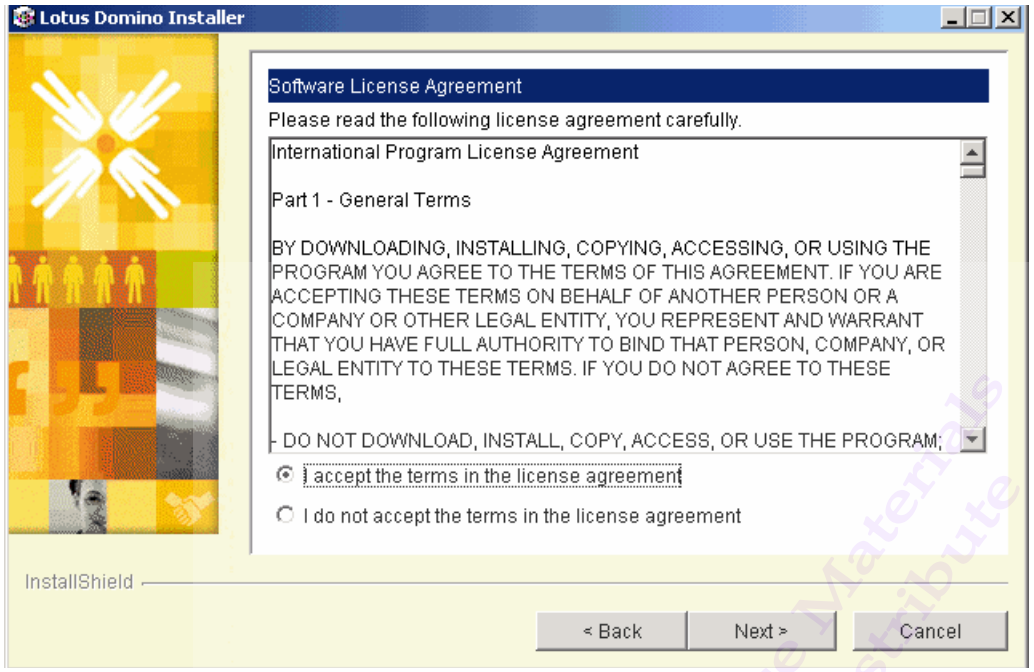
__ 4. Wait until the welcome window appears, and click **Next**.



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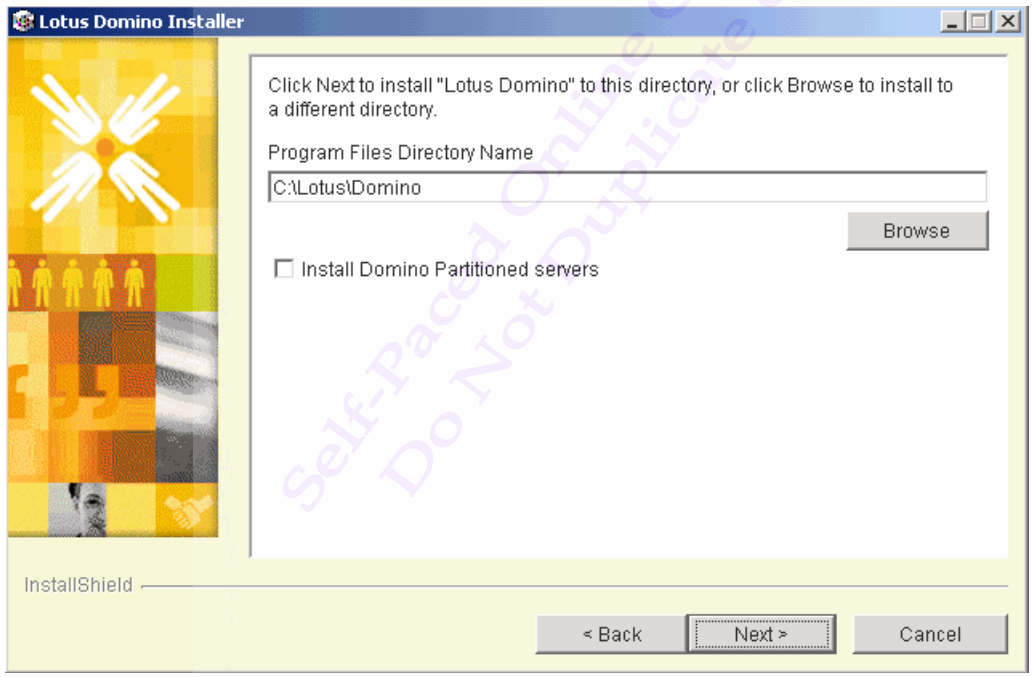
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__ 5. Click **Next**.


Lotus Domino Installer
Software License Agreement
Please read the following license agreement carefully.
International Program License Agreement
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- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM;
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

__ 6. Accept the following path to be the installation directory, and click **Next.**

Program Folder*:* `C:\Lotus\Domino`


Lotus Domino Installer
Click Next to install "Lotus Domino" to this directory, or click Browse to install to a different directory.
Program Files Directory Name
C:\Lotus\Domino
Browse
Install Domino Partitioned servers
InstallShield
< Back
Next >
Cancel

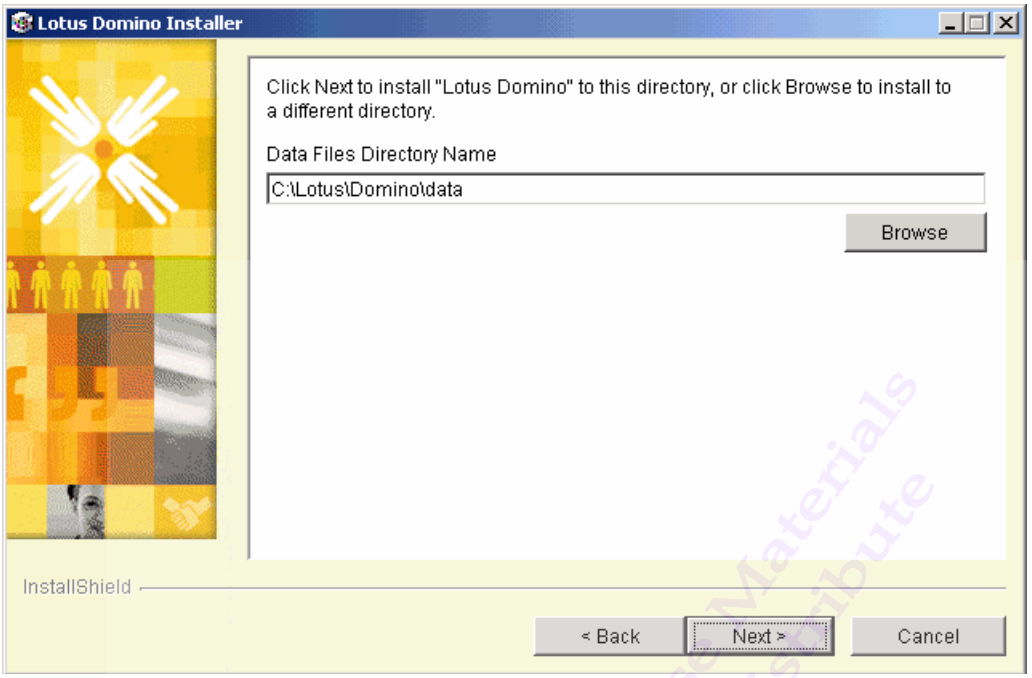
__ 7. Accept the following path to be the data directory, and click **Next.**

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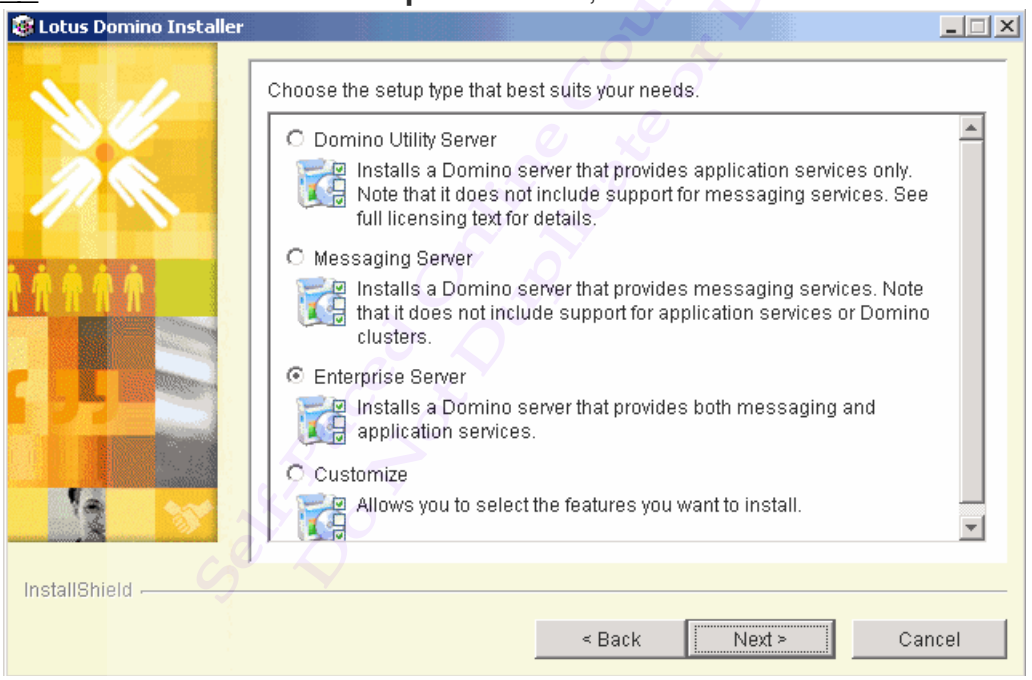
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Data Folder: `C:\Lotus\Domino\Data`


Lotus Domino Installer
Click Next to install "Lotus Domino" to this directory, or click Browse to install to a different directory.
Data Files Directory Name
C:\Lotus\Domino\data
Browse
InstallShield
< Back
Next >
Cancel

__ 8. Select **Domino Enterprise Server**, and click **Next**.


Lotus Domino Installer
Choose the setup type that best suits your needs.
Domino Utility Server
Installs a Domino server that provides application services only. Note that it does not include support for messaging services. See full licensing text for details.
Messaging Server
Installs a Domino server that provides messaging services. Note that it does not include support for application services or Domino clusters.
Enterprise Server
Installs a Domino server that provides both messaging and application services.
Customize
Allows you to select the features you want to install.
InstallShield
< Back
Next >
Cancel

__ 9. Click **Next** to start installation.

__ 10. Click **Finish** to exit installation.

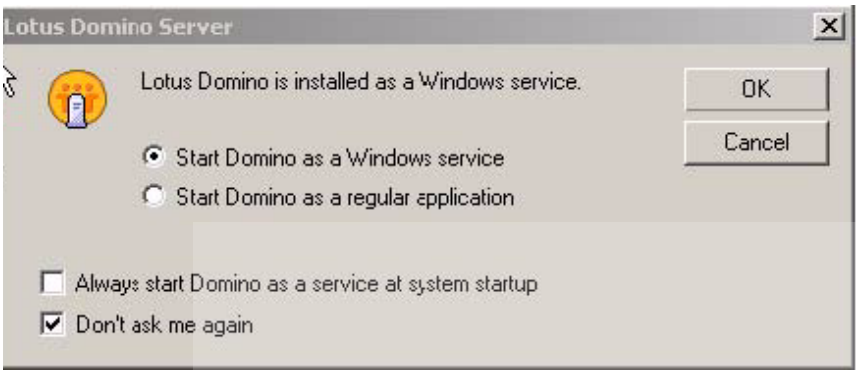
Part 2: Configure Domino

__ 1. Select **Start —> Programs —> Lotus Application —> Lotus Domino Server**.

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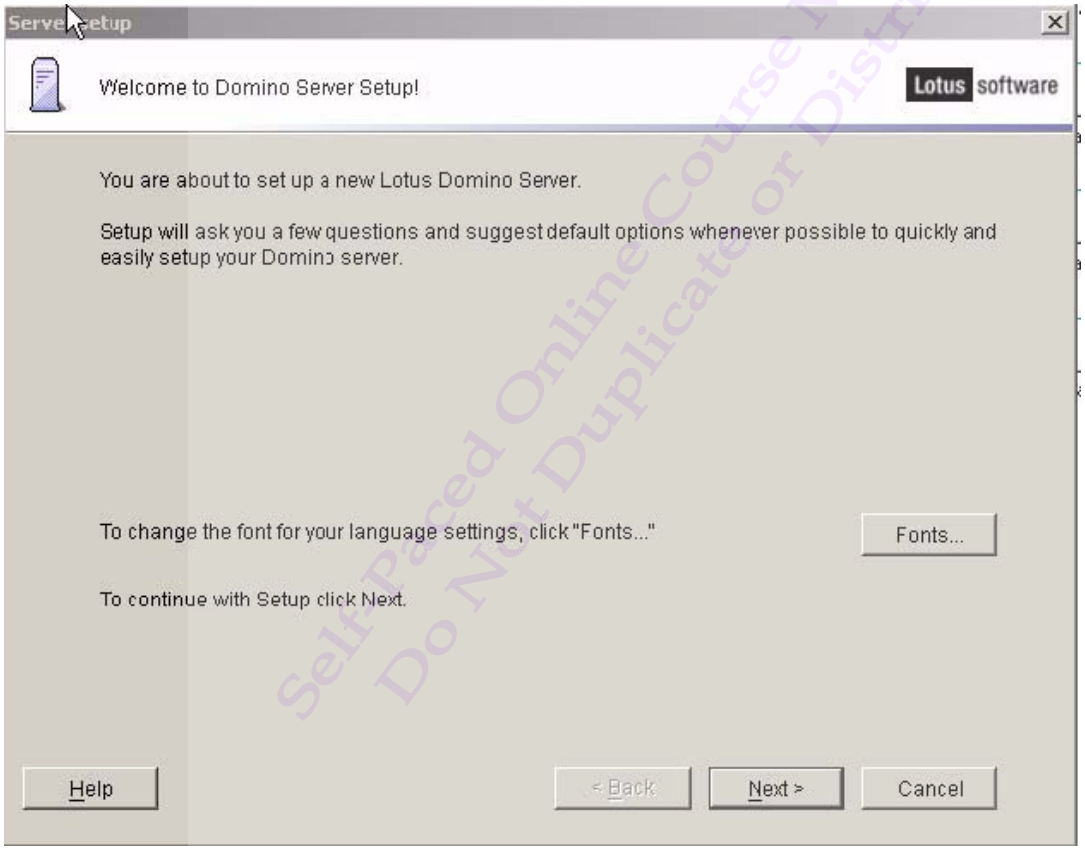
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__ 2. Select **Start Domino as a Windows service**, select the **Don't ask me again** check box, and click **OK**


Lotus Domino Server
Lotus Domino is installed as a Windows service.
OK
Cancel
Start Domino as a Windows service
Start Domino as a regular application
Always start Domino as a service at system startup
Don't ask me again

Note: When starting the Domino server, the benefit is that when shutting down the operating system, the system can automatically stop the Domino service; you do not need to manually enter the `quit` or `exit` command.

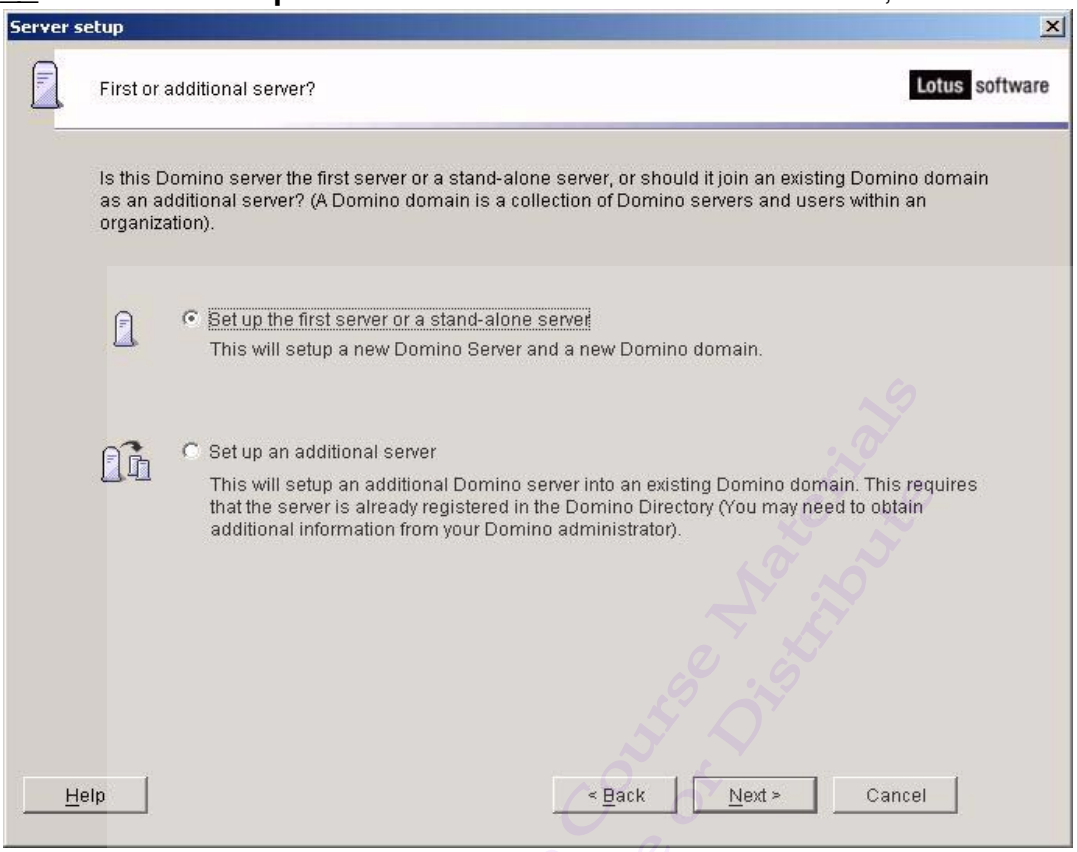
__ 3. Click **Next**.


Server Setup
Welcome to Domino Server Setup!
Lotus software
You are about to set up a new Lotus Domino Server.
Setup will ask you a few questions and suggest default options whenever possible to quickly and easily setup your Domino server.
To change the font for your language settings, click "Fonts..."
Fonts...
To continue with Setup click Next.
Help
< Back
Next >
Cancel

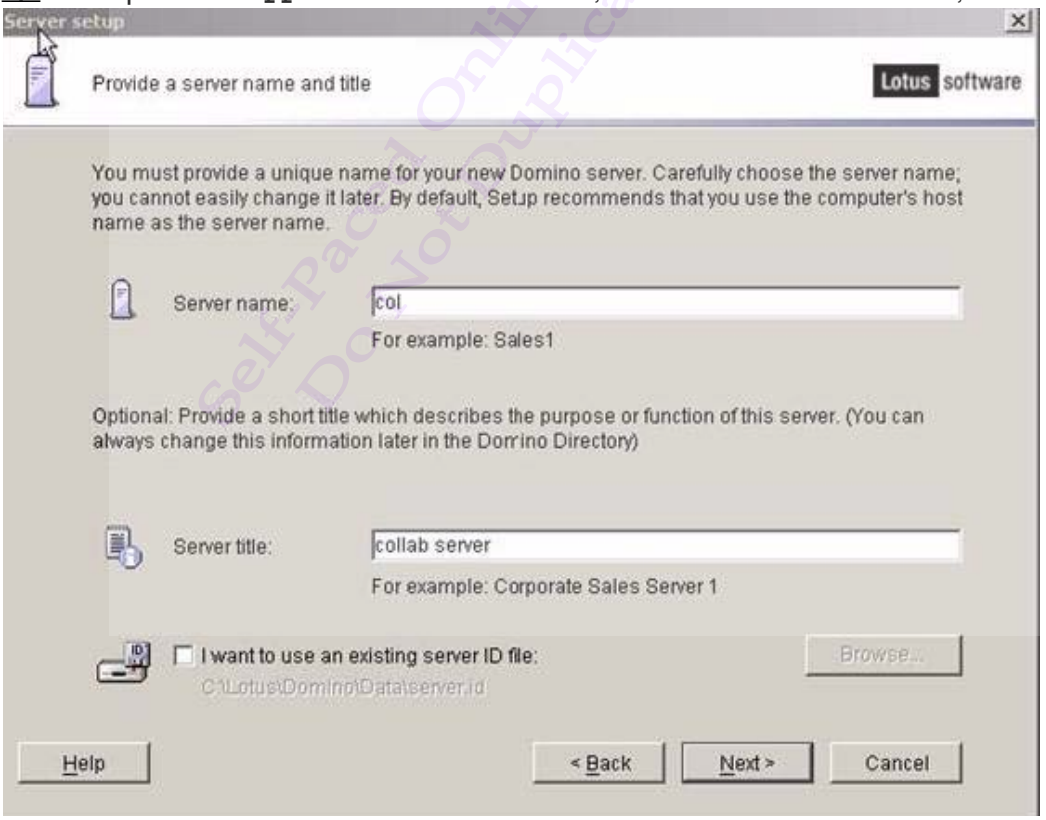
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__ 4. Select **Set up the first server or a stand-alone server**, and click **Next**.


Server setup
First or additional server?
Lotus software
Is this Domino server the first server or a stand-alone server, or should it join an existing Domino domain as an additional server? (A Domino domain is a collection of Domino servers and users within an organization).
Set up the first server or a stand-alone server
This will setup a new Domino Server and a new Domino domain.
Set up an additional server
This will setup an additional Domino server into an existing Domino domain. This requires that the server is already registered in the Domino Directory (You may need to obtain additional information from your Domino administrator).
Help
< Back
Next >
Cancel

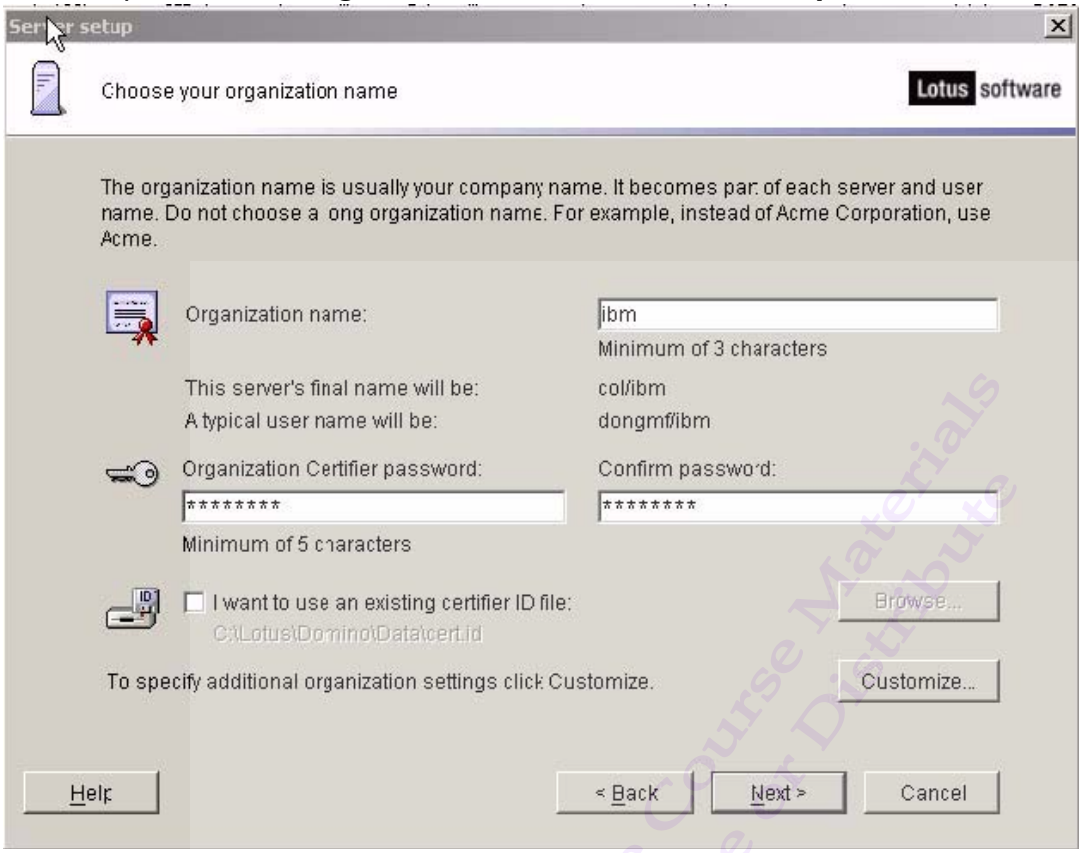
__ 5. Input `wtteapps03` as **Server name**, leave **Server Title** blank, and click **Next**.


Server setup
Provide a server name and title
Lotus software
You must provide a unique name for your new Domino server. Carefully choose the server name; you cannot easily change it later. By default, Setup recommends that you use the computer's host name as the server name.
Server name:
col
For example: Sales1
Optional: Provide a short title which describes the purpose or function of this server. (You can always change this information later in the Domino Directory)
Server title:
collab server
For example: Corporate Sales Server 1
I want to use an existing server ID file:
Browse...
C:\Lotus\Domino\Data\server.id
Help
< Back
Next >
Cancel

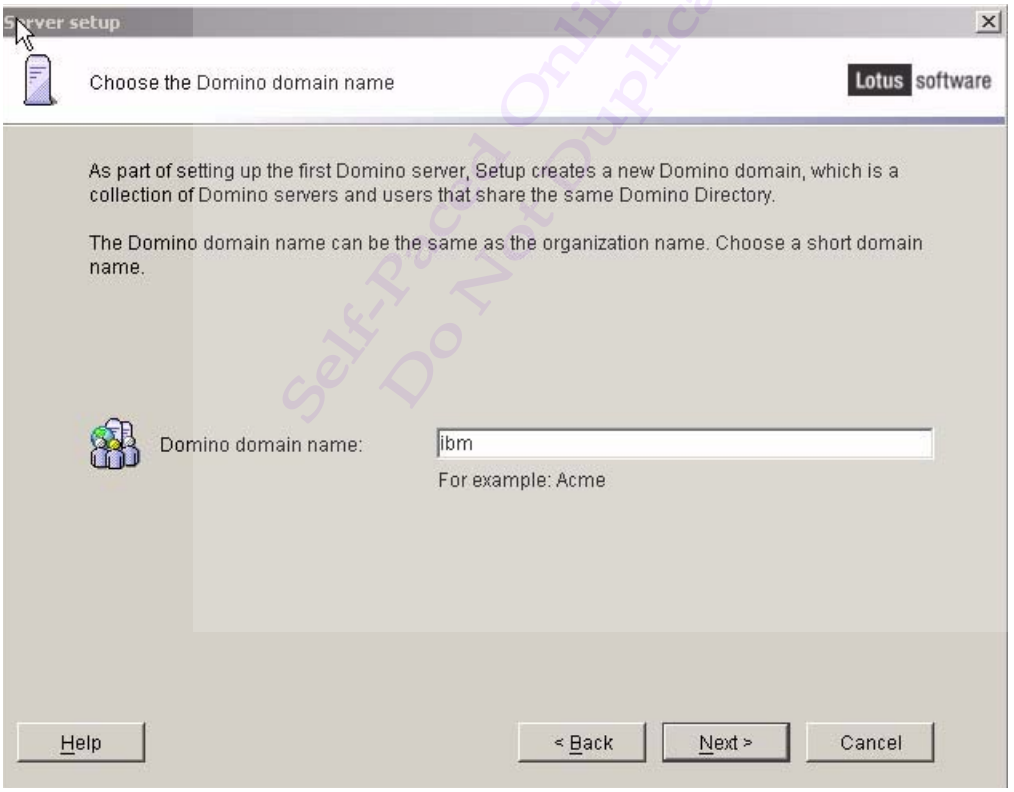
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__ 6. Input `ibm` for **Organization Name**, `password` for **password**, and click **Next**.


Server setup
Choose your organization name
Lotus software
The organization name is usually your company name. It becomes part of each server and user name. Do not choose a long organization name. For example, instead of Acme Corporation, use Acme.
Organization name:
ibm
Minimum of 3 characters
This server's final name will be:
col/ibm
A typical user name will be:
dongmf/ibm
Organization Certifier password:
Confirm password:
****
****
Minimum of 5 characters
I want to use an existing certifier ID file:
C:\Lotus\Domino\Data\cert.id
Browse...
To specify additional organization settings click Customize.
Customize...
Help
< Back
Next >
Cancel

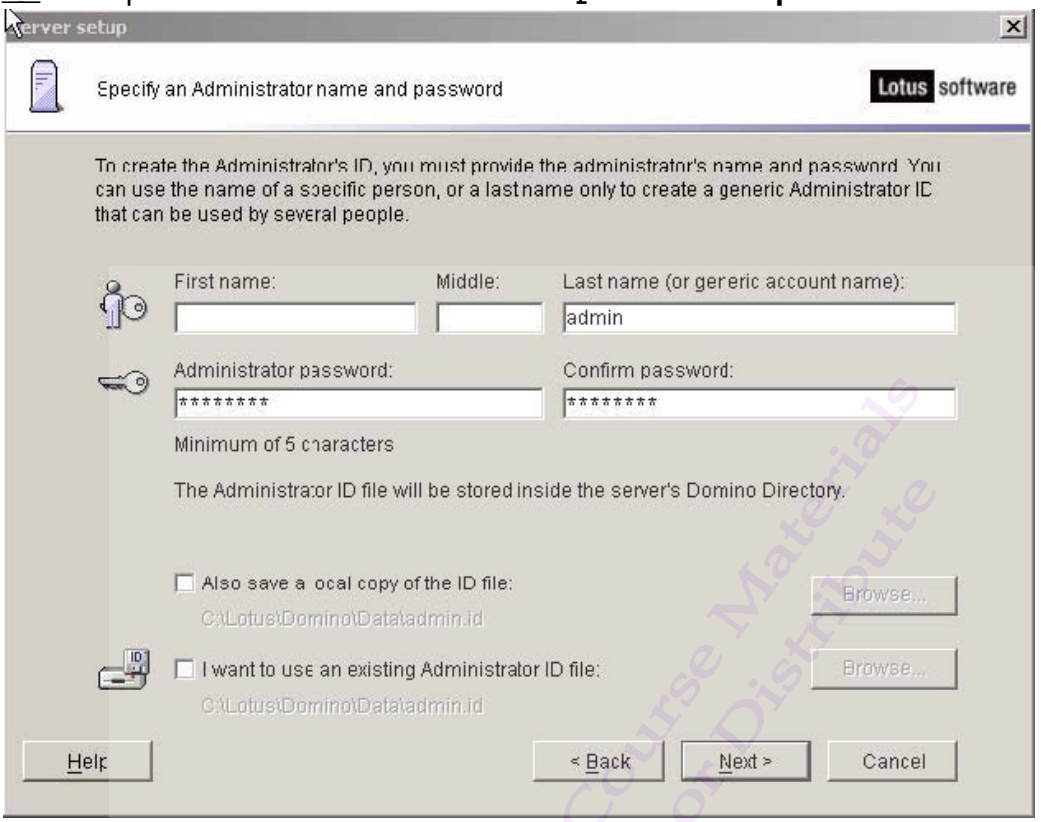
__ 7. Input `ibm` for **Domino Domain Name**, and click **Next**.


Server setup
Choose the Domino domain name
Lotus software
As part of setting up the first Domino server, Setup creates a new Domino domain, which is a collection of Domino servers and users that share the same Domino Directory.
The Domino domain name can be the same as the organization name. Choose a short domain name.
Domino domain name:
ibm
For example: Acme
Help
< Back
Next >
Cancel

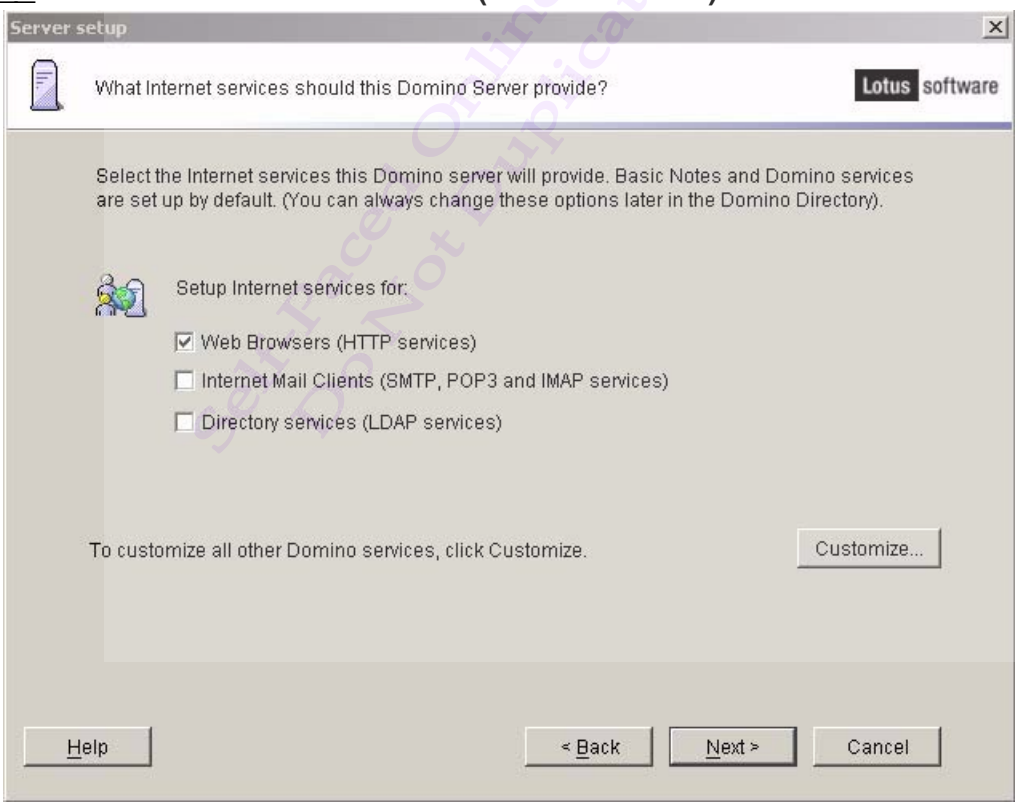
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__ 8. Input `admin` for **Last Name** and `password` for **password**.


Server setup
Specify an Administrator name and password
Lotus software
To create the Administrator's ID, you must provide the administrator's name and password. You can use the name of a specific person, or a last name only to create a generic Administrator ID that can be used by several people.
First name:
Middle:
Last name (or generic account name):
admin
Administrator password:
Confirm password:
****
****
Minimum of 5 characters
The Administrator ID file will be stored inside the server's Domino Directory.
Also save a local copy of the ID file:
C:\Lotus\Domino\Data\admin.id
Browse...
I want to use an existing Administrator ID file:
C:\Lotus\Domino\Data\admin.id
Browse...
Help
< Back
Next >
Cancel

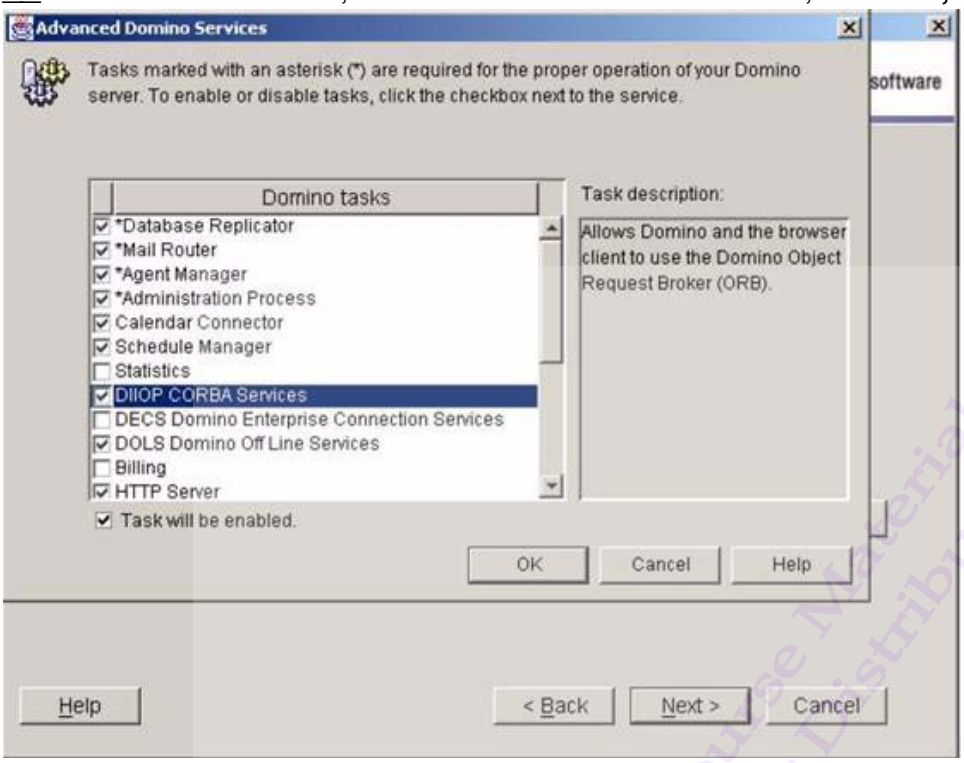
__ 9. Select the **Web Browsers (HTTP services)** check box.


Server setup
What Internet services should this Domino Server provide?
Lotus software
Select the Internet services this Domino server will provide. Basic Notes and Domino services are set up by default. (You can always change these options later in the Domino Directory).
Setup Internet services for:
Web Browsers (HTTP services)
Internet Mail Clients (SMTP, POP3 and IMAP services)
Directory services (LDAP services)
To customize all other Domino services, click Customize.
Customize...
Help
< Back
Next >
Cancel

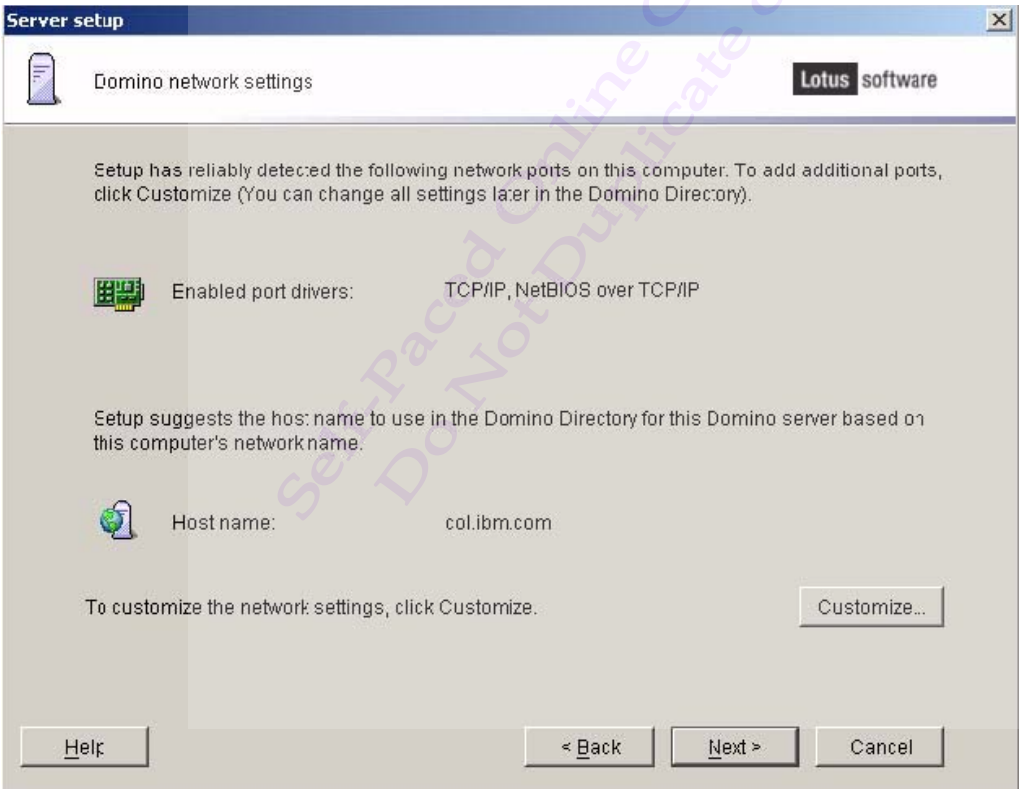
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__ 10. Click **Customize**, select **DIIOP CORBA Services**, click **OK,** and click **Next**.



__ 11. Click **Customize**.


Server setup
Domino network settings
Lotus software
Setup has reliably detected the following network ports on this computer. To add additional ports, click Customize (You can change all settings later in the Domino Directory).
Enabled port drivers:
TCP/IP, NetBIOS over TCP/IP
Setup suggests the host name to use in the Domino Directory for this Domino server based on this computer's network name.
Host name:
col.ibm.com
To customize the network settings, click Customize.
Customize...
Help
< Back
Next >
Cancel

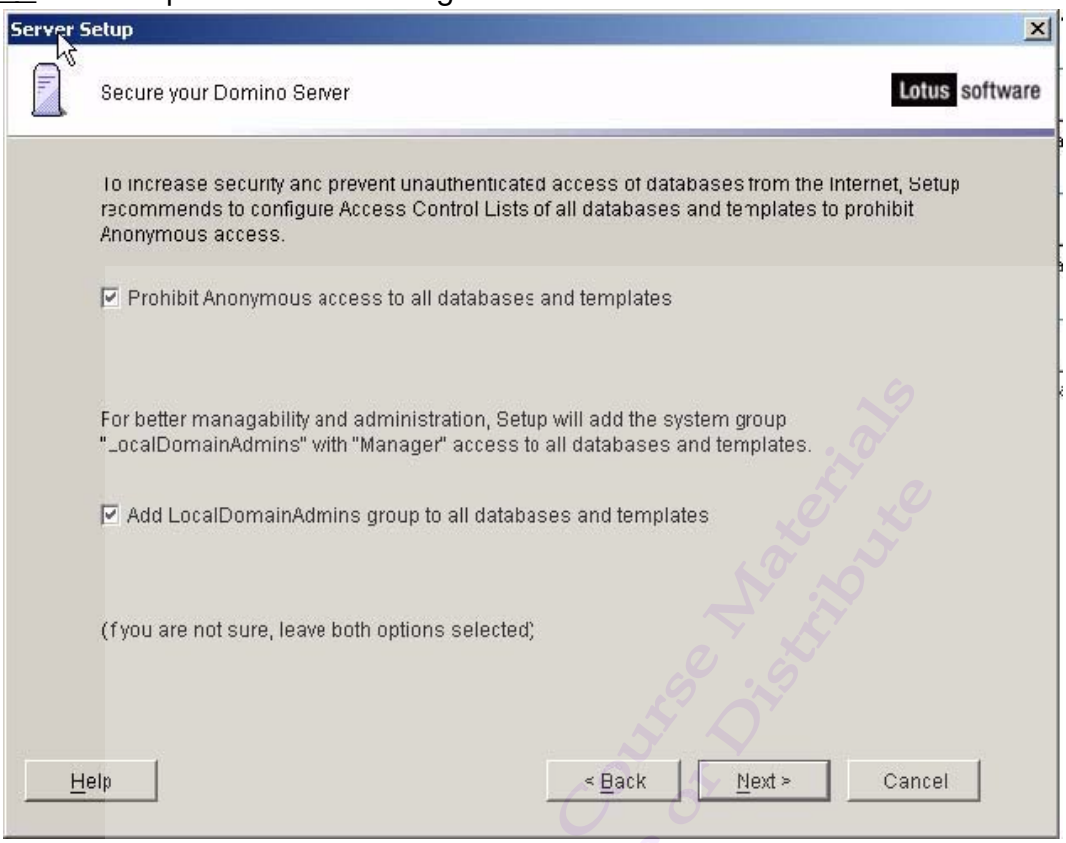
__ 12. Clear the **NetBIOS over TCP/IP** check box, and make sure that Host Name and the fully qualified Internet host name are both `wtteapps03.usri.ibm.com`. Click **OK**, and click **Next**.

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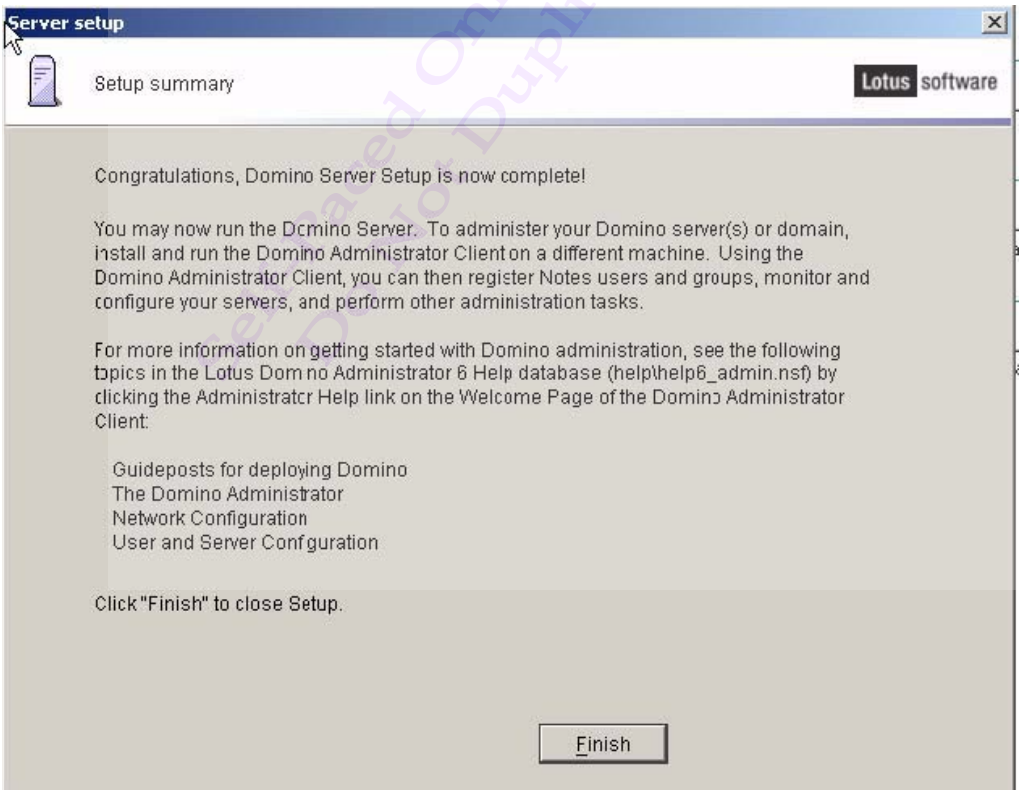
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__ 13. Accept the default setting and click **Next**.


Server Setup
Secure your Domino Server
Lotus software
To increase security and prevent unauthenticated access of databases from the Internet, Setup recommends to configure Access Control Lists of all databases and templates to prohibit Anonymous access.
Prohibit Anonymous access to all databases and templates
For better managability and administration, Setup will add the system group "LocalDomainAdmins" with "Manager" access to all databases and templates.
Add LocalDomainAdmins group to all databases and templates
(If you are not sure, leave both options selected)
Help
< Back
Next >
Cancel

__ 14. Click **Setup** to start Domino Server setup.

__ 15. Click **Finish**.


Server setup
Setup summary
Lotus software
Congratulations, Domino Server Setup is now complete!
You may now run the Domino Server. To administer your Domino server(s) or domain, install and run the Domino Administrator Client on a different machine. Using the Domino Administrator Client, you can then register Notes users and groups, monitor and configure your servers, and perform other administration tasks.
For more information on getting started with Domino administration, see the following topics in the Lotus Domino Administrator 6 Help database (help\help6_admin.nsf) by clicking the Administrator Help link on the Welcome Page of the Domino Administrator Client:
Guideposts for deploying Domino
The Domino Administrator
Network Configuration
User and Server Configuration
Click "Finish" to close Setup.
Finish

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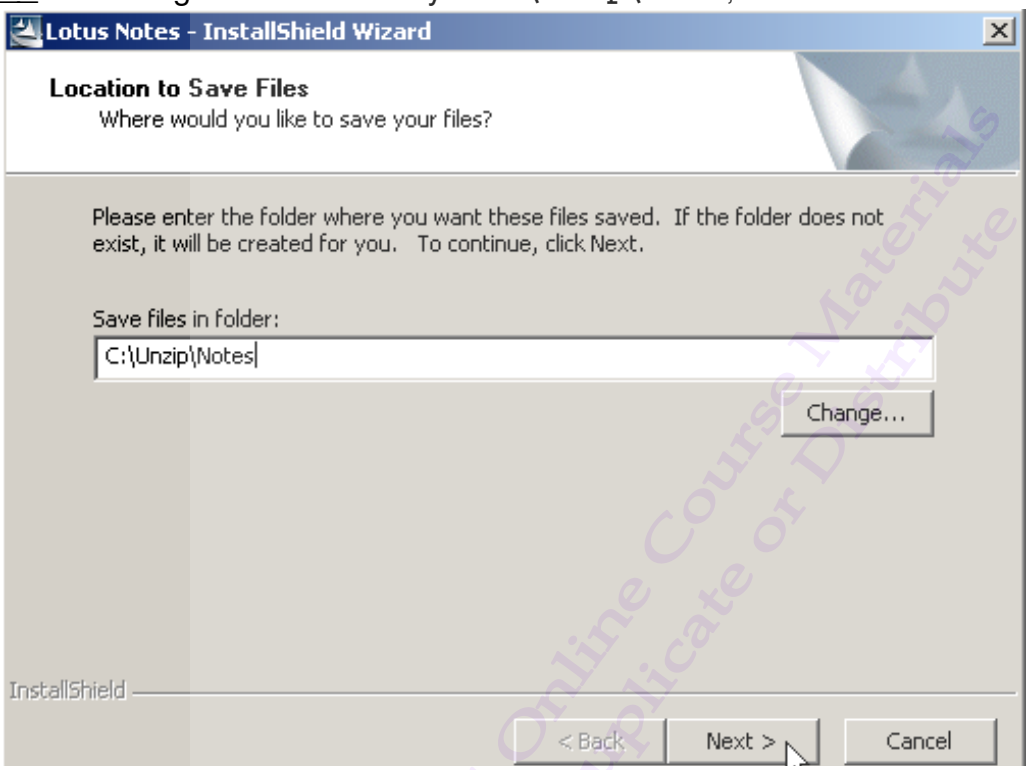
Part 3: [Optional] Installing and configuring Domino Client

The sections marked **[Optional] only apply to you if you only need Lotus Notes Client for maintenance purposes.**

__ 1. Navigate to `C:\DownloadDirector`.

__ 2. Locate and double-click **C82dpna.exe**.

__ 3. Change the file directory to `C:\Unzip\Notes`, and click **Next.**

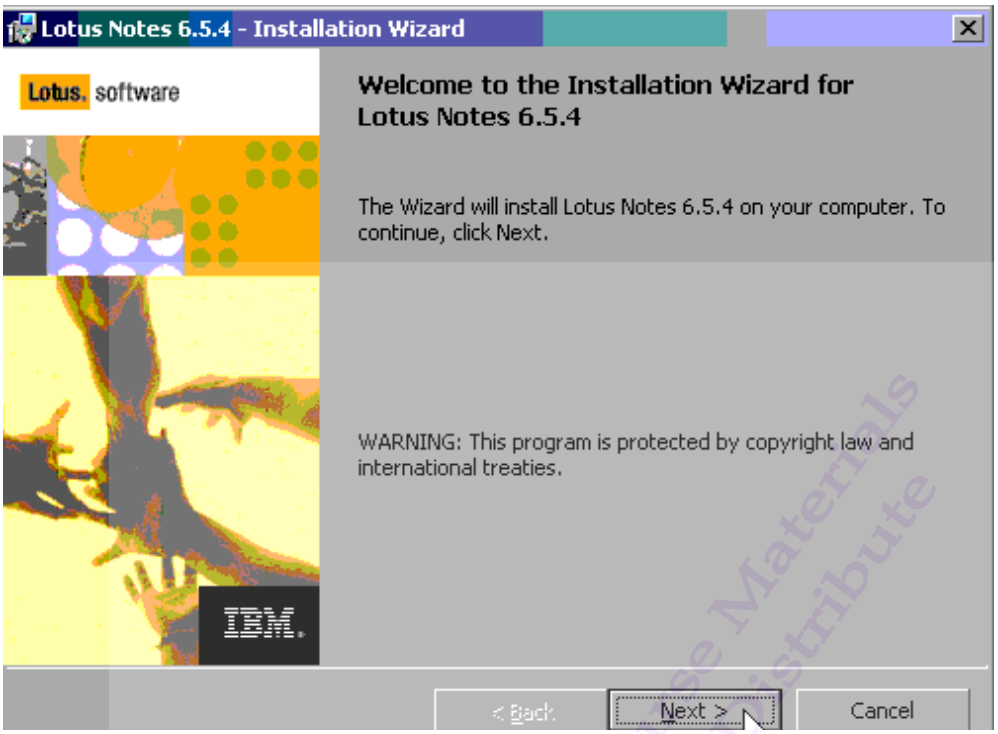

Lotus Notes - InstallShield Wizard
Location to Save Files
Where would you like to save your files?
Please enter the folder where you want these files saved. If the folder does not exist, it will be created for you. To continue, click Next.
Save files in folder:
C:\Unzip\Notes
Change...
InstallShield
< Back
Next >
Cancel

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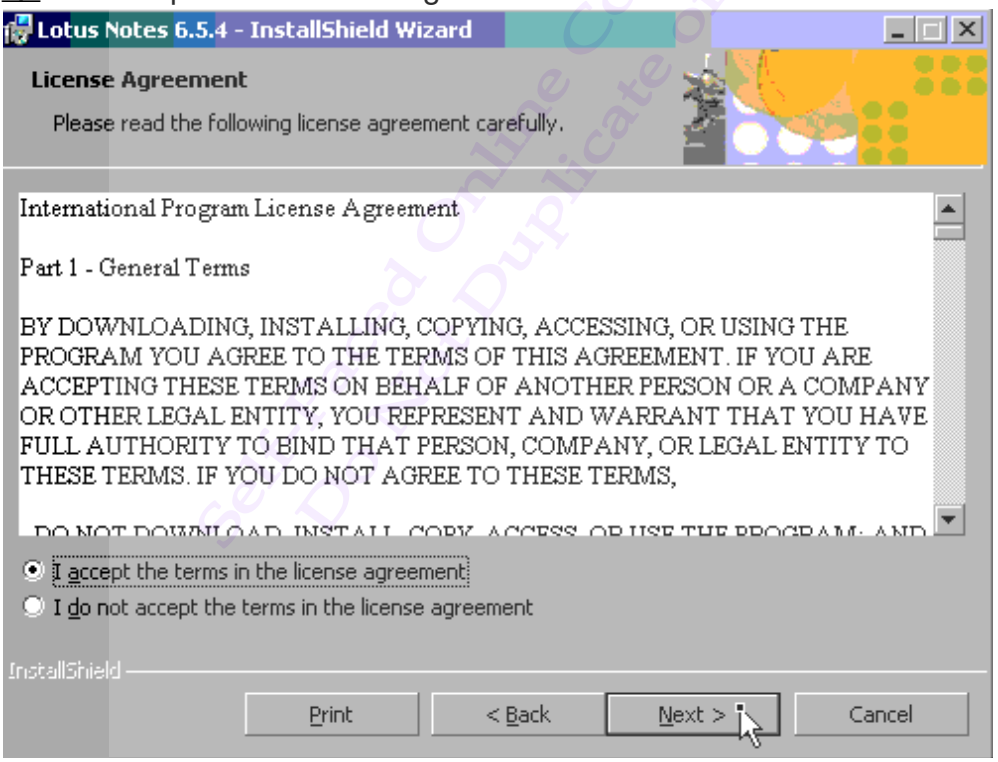
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__ 4. Click **Next**.


Lotus Notes 6.5.4 - Installation Wizard
Lotus. software
Welcome to the Installation Wizard for Lotus Notes 6.5.4
The Wizard will install Lotus Notes 6.5.4 on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
IBM.
< Back
Next >
Cancel

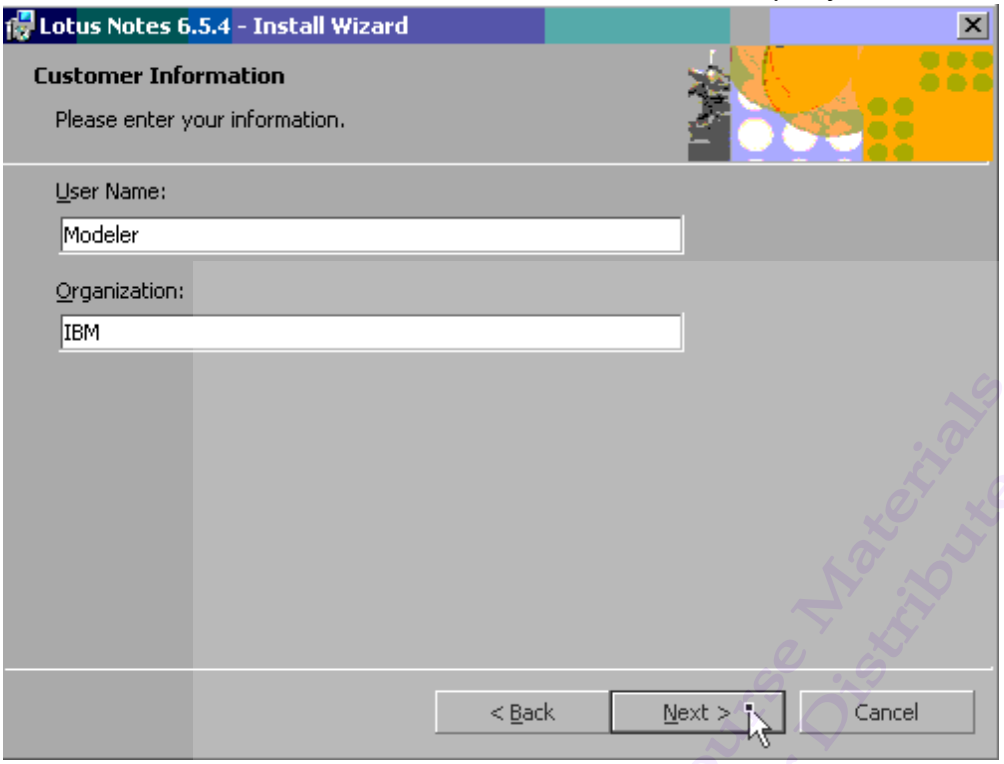
__ 5. Accept User License Agreement and click **Next**.


Lotus Notes 6.5.4 - InstallShield Wizard
License Agreement
Please read the following license agreement carefully.
International Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT THAT YOU HAVE FULL AUTHORITY TO BIND THAT PERSON, COMPANY, OR LEGAL ENTITY TO THESE TERMS. IF YOU DO NOT AGREE TO THESE TERMS,
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
Print
< Back
Next >
Cancel

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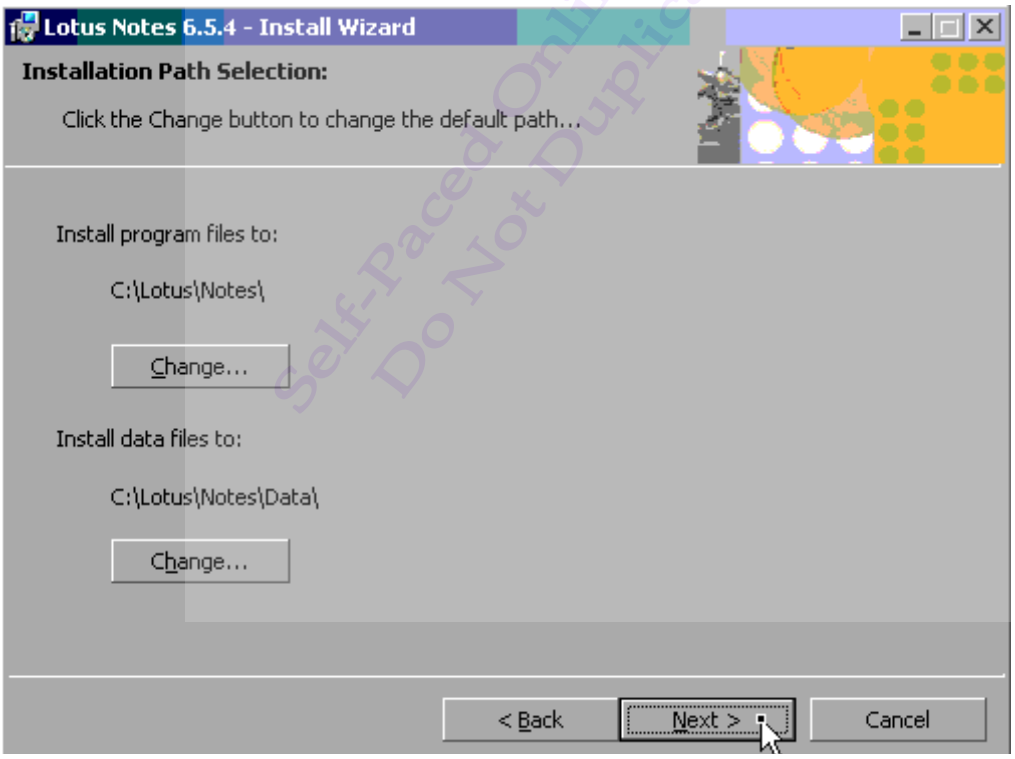
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__ 6. Enter `Modeler` as user name and `IBM` as company name, and click **Next**.



__ 7. Change installation directory as follows, and click **Next**.

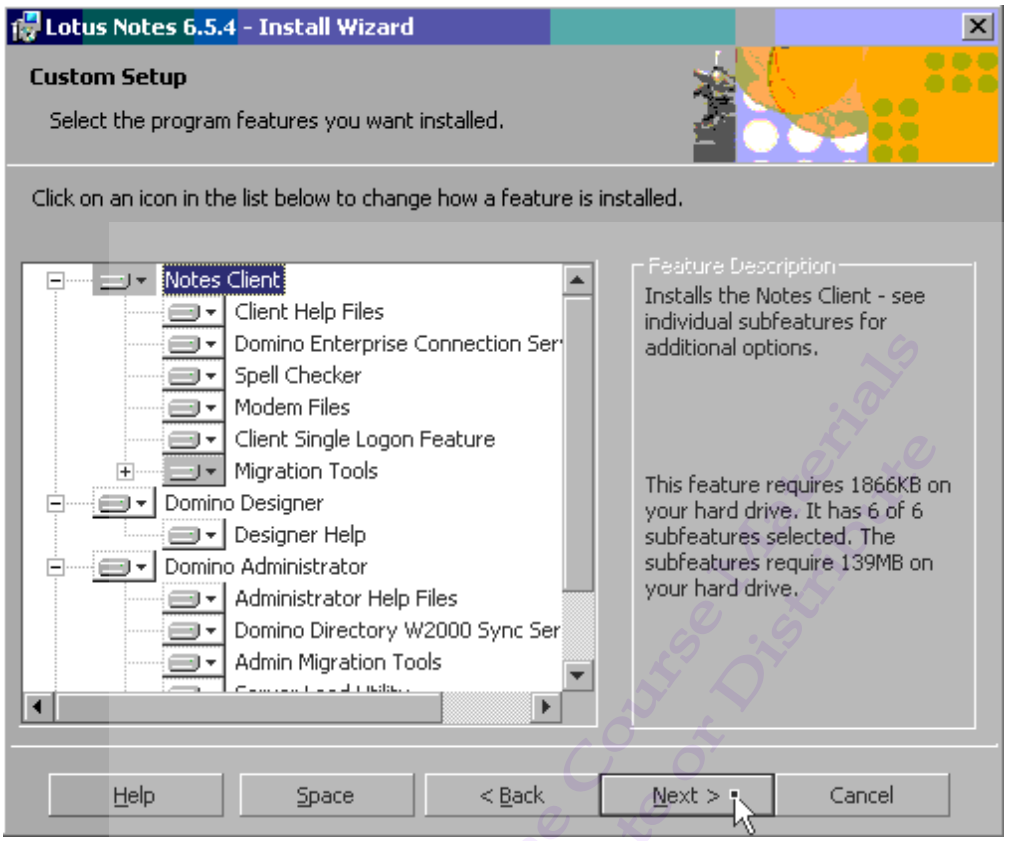
Program Folder: `C:\Lotus\Notes`
Data Folder: `C:\Lotus\Notes\Data`



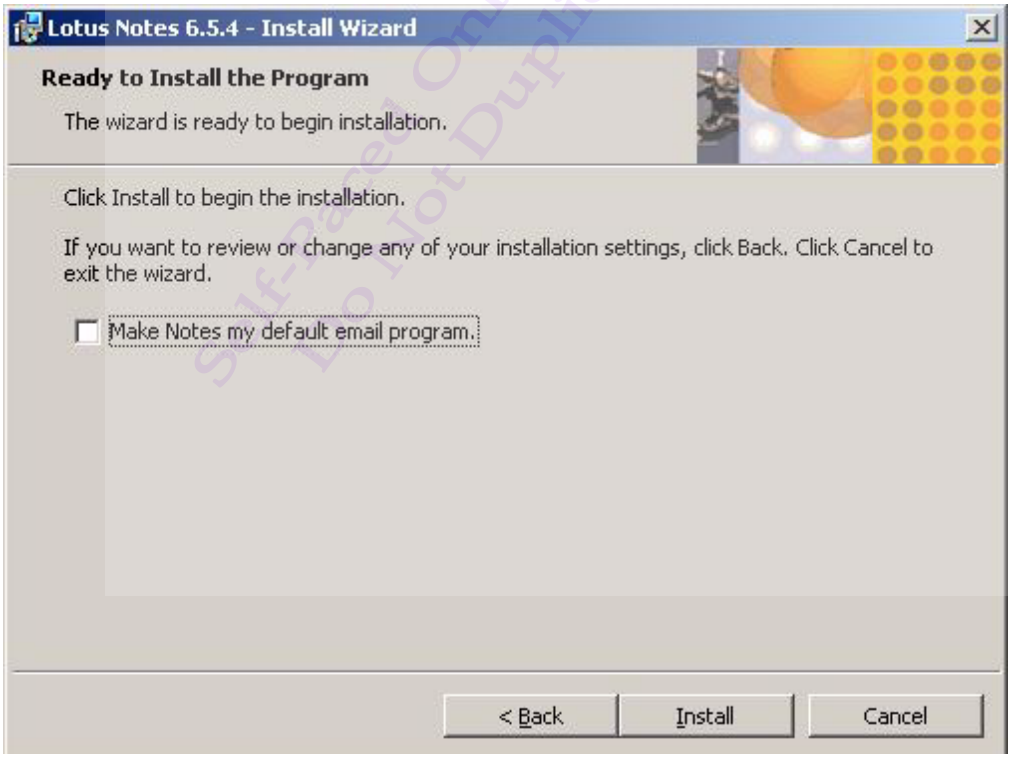
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__ 8. Make sure that Notes Client, Domino Designer, and Domino Administrator are all selected to install, and click **Next**.


Lotus Notes 6.5.4 - Install Wizard
Custom Setup
Select the program features you want installed.
Click on an icon in the list below to change how a feature is installed.
Notes Client
Client Help Files
Domino Enterprise Connection Ser
Spell Checker
Modem Files
Client Single Logon Feature
Migration Tools
Domino Designer
Designer Help
Domino Administrator
Administrator Help Files
Domino Directory W2000 Sync Ser
Admin Migration Tools
Feature Description
Installs the Notes Client - see individual subfeatures for additional options.
This feature requires 1866KB on your hard drive. It has 6 of 6 subfeatures selected. The subfeatures require 139MB on your hard drive.
Help
Space
< Back
Next >
Cancel

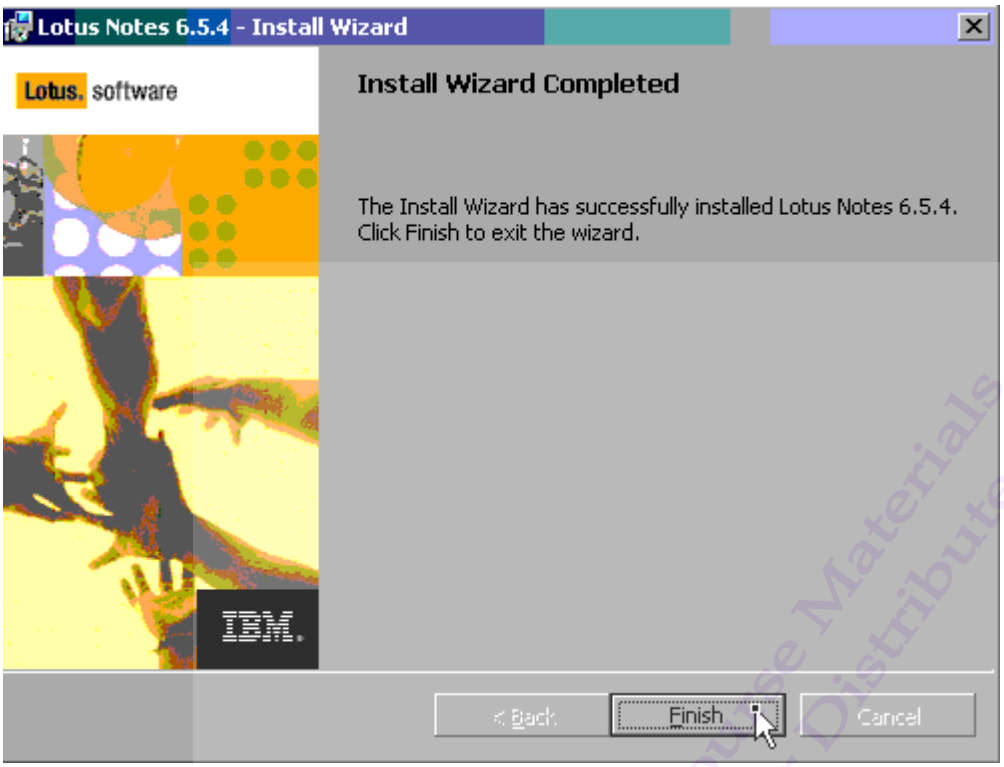
__ 9. Clear the check box and click **Install** to start installation.


Lotus Notes 6.5.4 - Install Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Make Notes my default email program.
< Back
Install
Cancel

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__ 10. Click **Finish**.



__ 11. Start Domino Server by selecting **Start —> Programs —> Lotus Applications —> Lotus Domino Server.**

__ 12. Start Note Client.

__ a. Select **Start —> Programs —> Lotus Applications —> Lotus Notes**

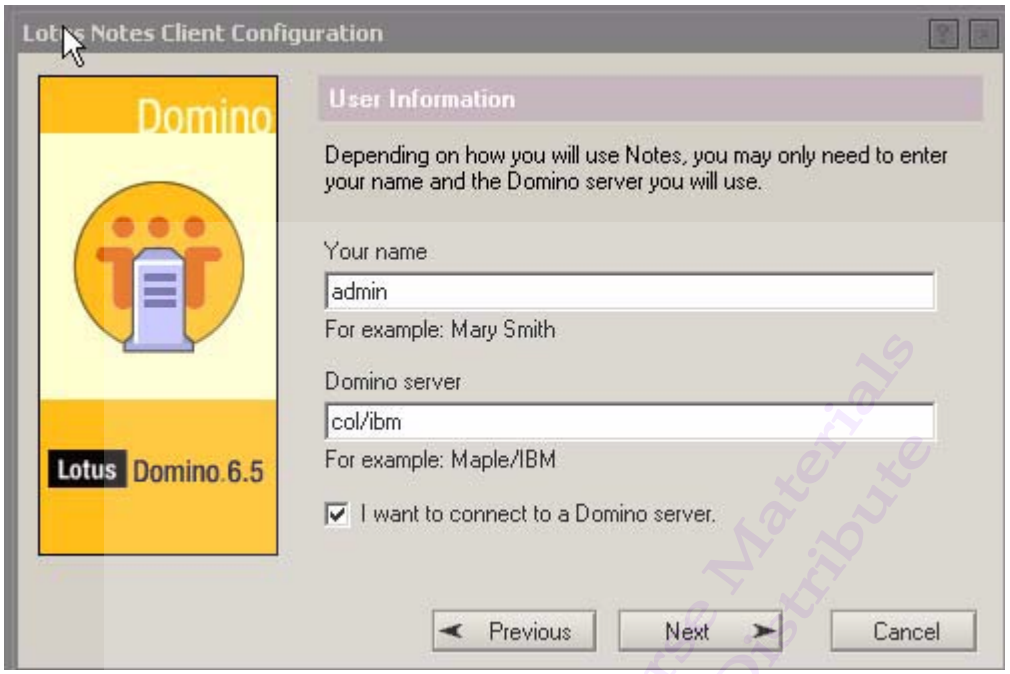
__ b. Click **Next**.


tus Notes Client Configuration
Welcome
This configuration program will help you set up Lotus Notes and to connect to any of the following servers using a LAN or modem connection:
* A Domino server
* Other mail servers
* Newsgroup and Directory servers
* An instant messaging server
It will also help you set up the following if needed:
* Proxy settings
* Replication schedules
Lotus Notes 6.5
Previous
Next
Cancel

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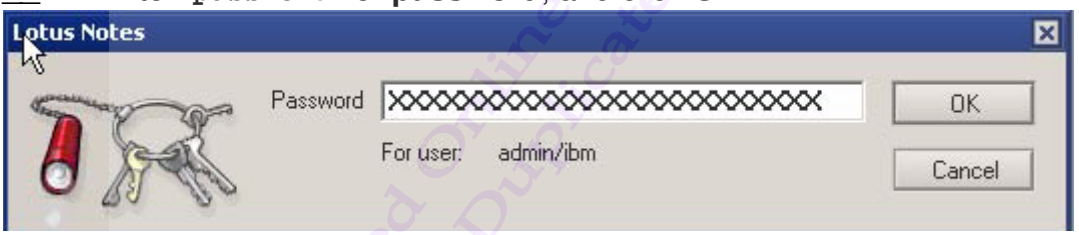
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__ 13. Input `admin` as **administrator name** and `col/ibm` as **Domino server name**, and click **Next**.



Note: Input the local computer name, such as `portalserver1` if the Domino Server is local.

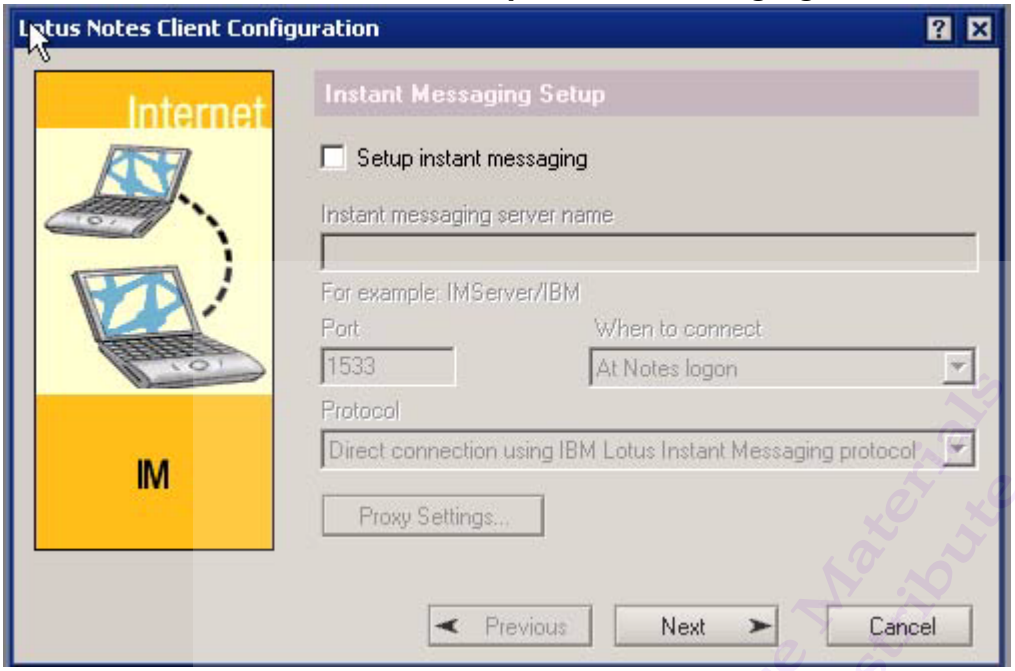
__ 14. Enter `password` for **password**, and click **OK.**



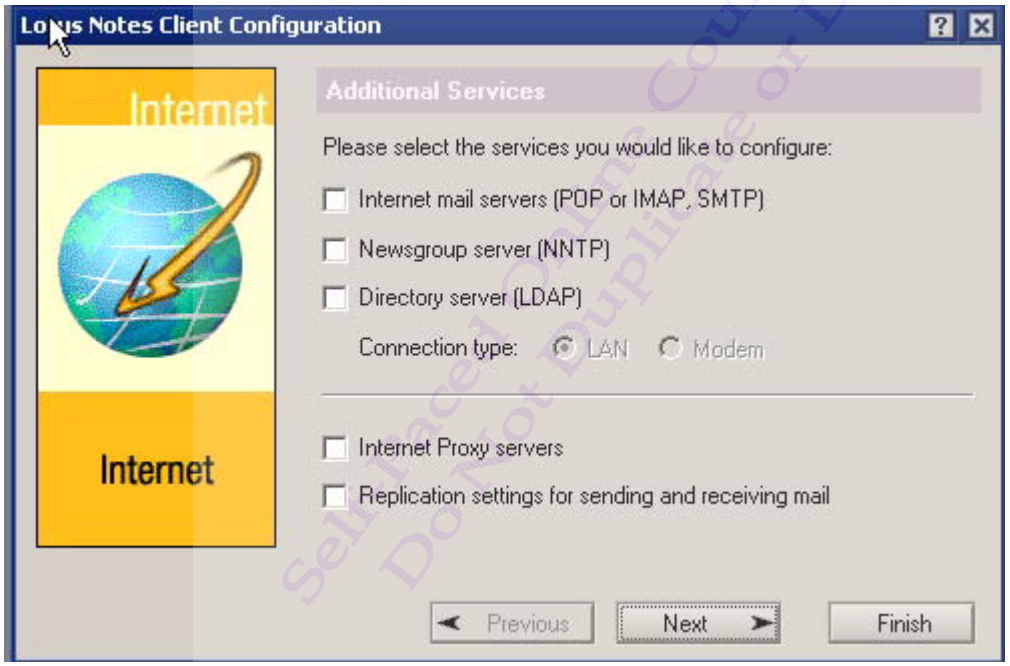
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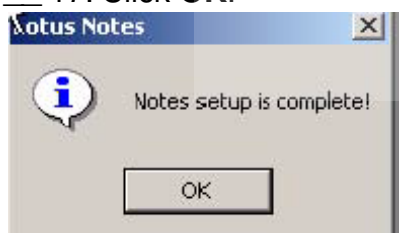
__ 15. Clear the check box for **Setup instant messaging**, and click **Next**.



__ 16. Click **Finish**.



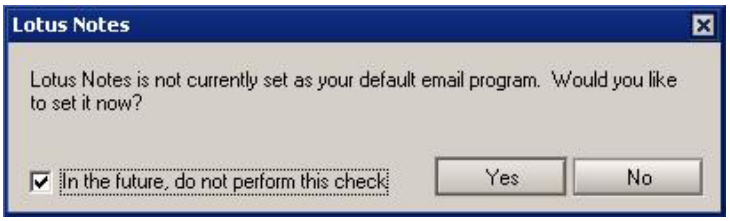
__ 17. Click **OK**.



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__ 18. Click **No**.


Lotus Notes
Lotus Notes is not currently set as your default email program. Would you like to set it now?
In the future, do not perform this check
Yes
No

__ 19. Exit Lotus Notes.

END OF EXERCISE

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Appendix I. Installing IBM Directory Server

Part 1: Installing IDS

Lotus workplace products support many kinds of LDAP servers. An LDAP directory server can install independently or use your existing LDAP server. IBM Directory Server is used for the examples.

Note: If you are installing the LDAP server on a separate machine from the one you have Portal installed, specify the IP address of the LDAP machine on the hosts file in the Portal server machine. The hosts file is located at `C:\winnt\system32\drivers\etc\hosts`.

__ 1. Stop all other active application servers.

__ a. Open a command prompt, and input `cd C:\WebSphere\AppServer\profiles\AppSrv01\bin`, if you have not done so.

__ b. Input `serverStatus.bat -all` and press **Enter** to list the active application servers.

__ c. If all listed servers, server1 and WebSphere_Portal are listed as stopped, proceed to step 2.

__ d. Input `stopServer server1`, and press **Enter** to stop server1.

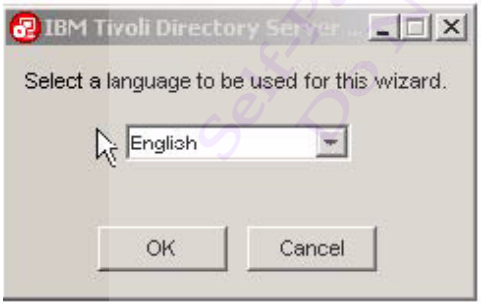
__ e. Input `stopServer WebSphere_Portal` and press **Enter** to stop WebSphere_Portal.

__ 2. Navigate to `C:\DownloadDirector\`

__ 3. Locate and extract **C59HTML.zip** to `C:\Unzip\LDAP\`

__ 4. Navigate to `C:\Unzip\LDAP\ismp\` and double-click `setup.exe`

__ 5. Select **English** and click **OK**.



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__ 6. Click **Next** at the Welcome window.


IBM Tivoli Directory Server 5.2
Welcome to the InstallShield Wizard for IBM Tivoli Directory Server 5.2
The InstallShield Wizard will install IBM Tivoli Directory Server 5.2 on your computer. To continue, choose Next.
IBM Tivoli Directory Server 5.2
InstallShield
< Back
Next >
Cancel

__ 7. Select **I accept**, and click **Next**.


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- DO NOT DOWNLOAD, INSTALL, COPY, ACCESS, OR USE THE PROGRAM; AND
- PROMPTLY RETURN THE PROGRAM AND PROOF OF ENTITLEMENT TO THE
I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

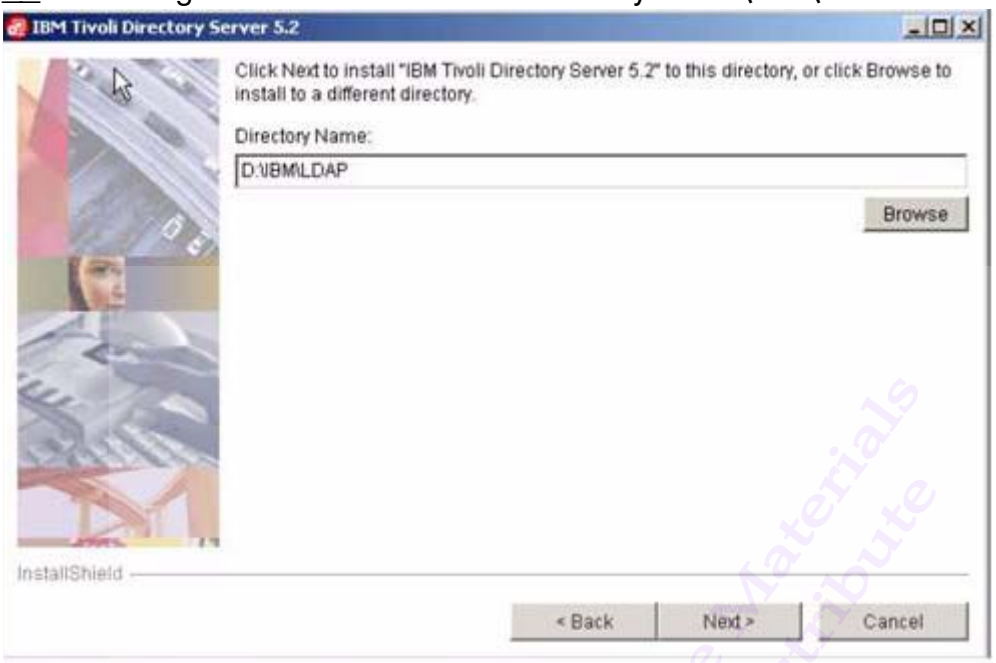
Note: If the system installs a new DB2 database, click **Next**.

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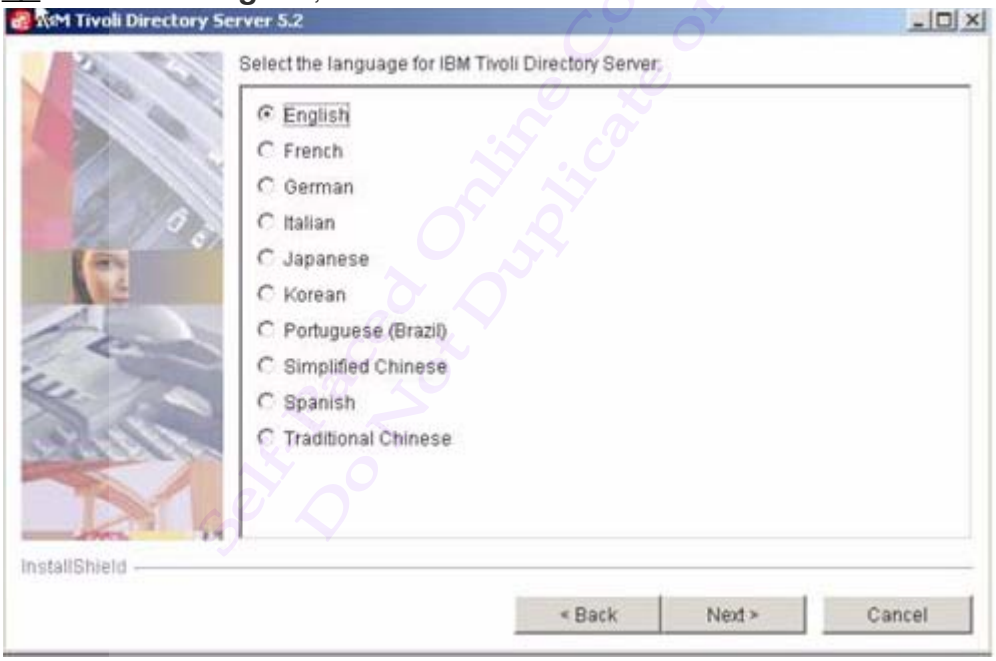
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__ 8. Change the LDAP installation directory to `C:\IBM\LDAP` and click **Next**.


IBM Tivoli Directory Server 5.2
Click Next to install "IBM Tivoli Directory Server 5.2" to this directory, or click Browse to install to a different directory.
Directory Name:
D:\IBM\LDAP
Browse
InstallShield
< Back
Next >
Cancel

Note: Do not leave any spaces in the installation path.

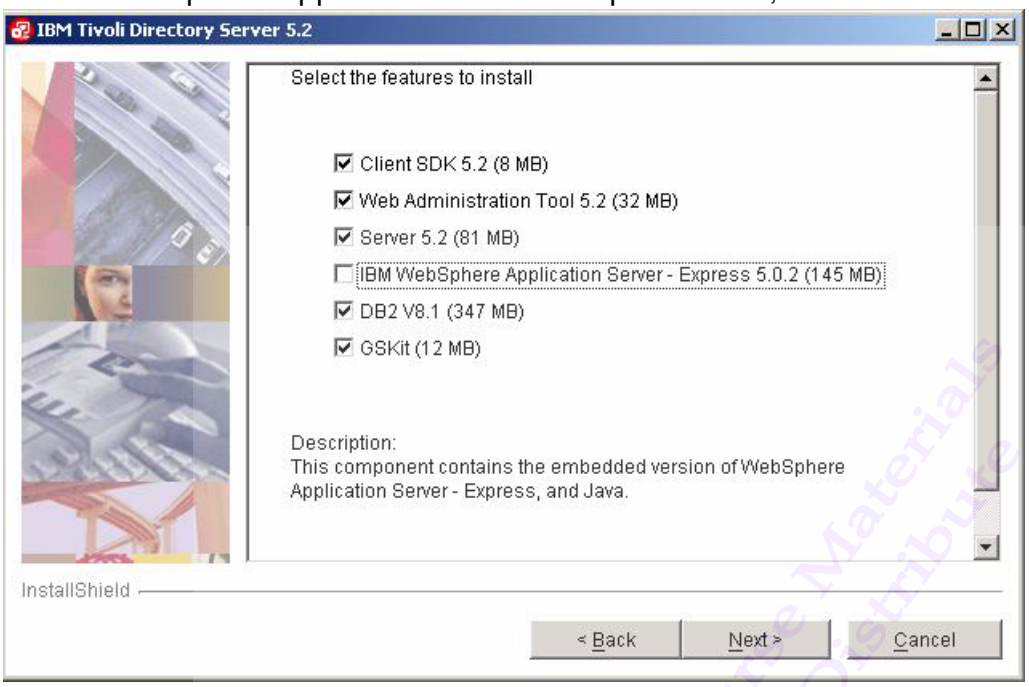
__ 9. Select **English**, and click **Next**.



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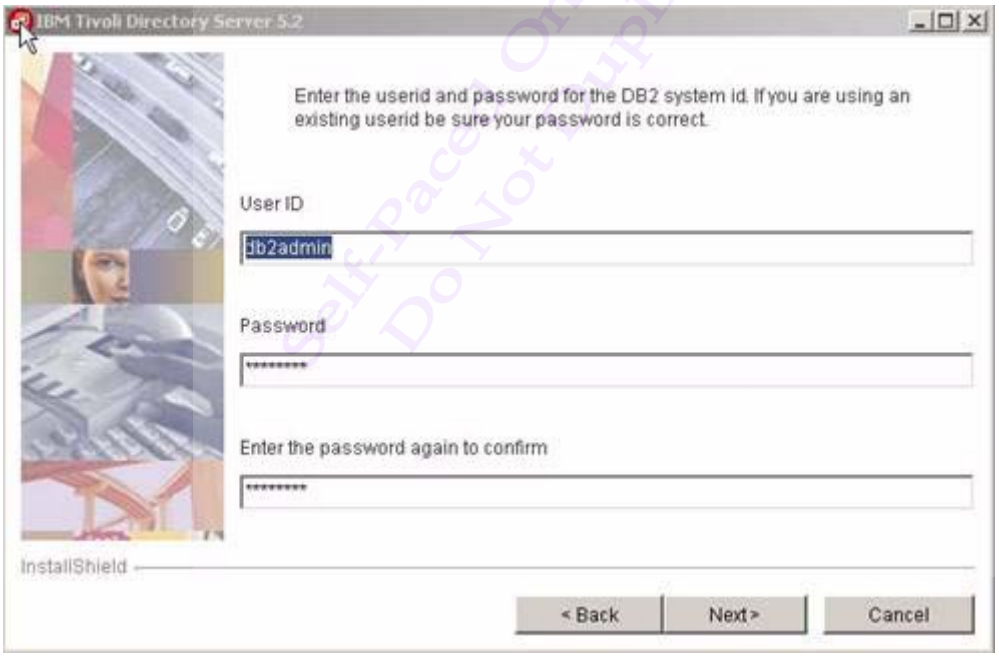
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__ 10. You have an option of having all components selected, or deselecting the IBM WebSphere Application Server – Express 5.0.2; click **Next**.


IBM Tivoli Directory Server 5.2
Select the features to install
Client SDK 5.2 (8 MB)
Web Administration Tool 5.2 (32 MB)
Server 5.2 (81 MB)
IBM WebSphere Application Server - Express 5.0.2 (145 MB)
DB2 V8.1 (347 MB)
GSKit (12 MB)
Description:
This component contains the embedded version of WebSphere Application Server - Express, and Java.
InstallShield
< Back
Next >
Cancel

Note: Although the previously installed WebSphere Application Server 6.0.2 has been stopped, installation of WebSphere Application Server 5.0.2 may still cause conflicts in the system. Therefore, it is suggested to not select Application Server Express to install.

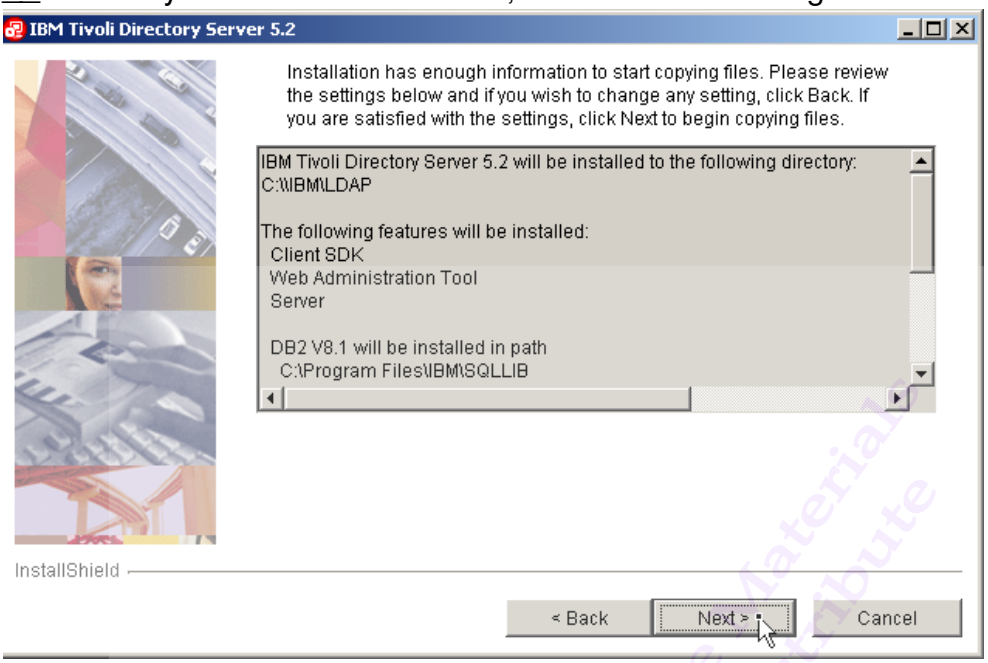
__ 11. Enter `db2admin` as the administrator and `password` as the password, and click **Next**.


IBM Tivoli Directory Server 5.2
Enter the userid and password for the DB2 system id. If you are using an existing userid be sure your password is correct.
User ID
db2admin
Password
Enter the password again to confirm
InstallShield
< Back
Next >
Cancel

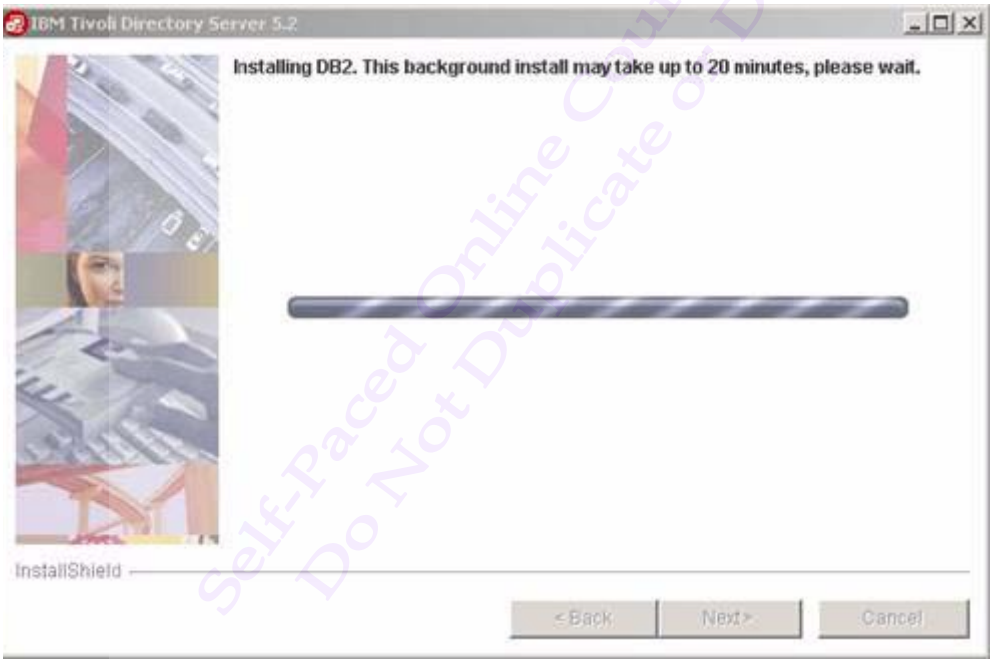
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__ 12. Verify installation information, and click **Next** to begin.


IBM Tivoli Directory Server 5.2
Installation has enough information to start copying files. Please review the settings below and if you wish to change any setting, click Back. If you are satisfied with the settings, click Next to begin copying files.
IBM Tivoli Directory Server 5.2 will be installed to the following directory:
C:\IBM\LDAP
The following features will be installed:
Client SDK
Web Administration Tool
Server
DB2 V8.1 will be installed in path
C:\Program Files\IBM\SQLLIB
InstallShield
< Back
Next >
Cancel

__ 13. Wait for installation to complete.

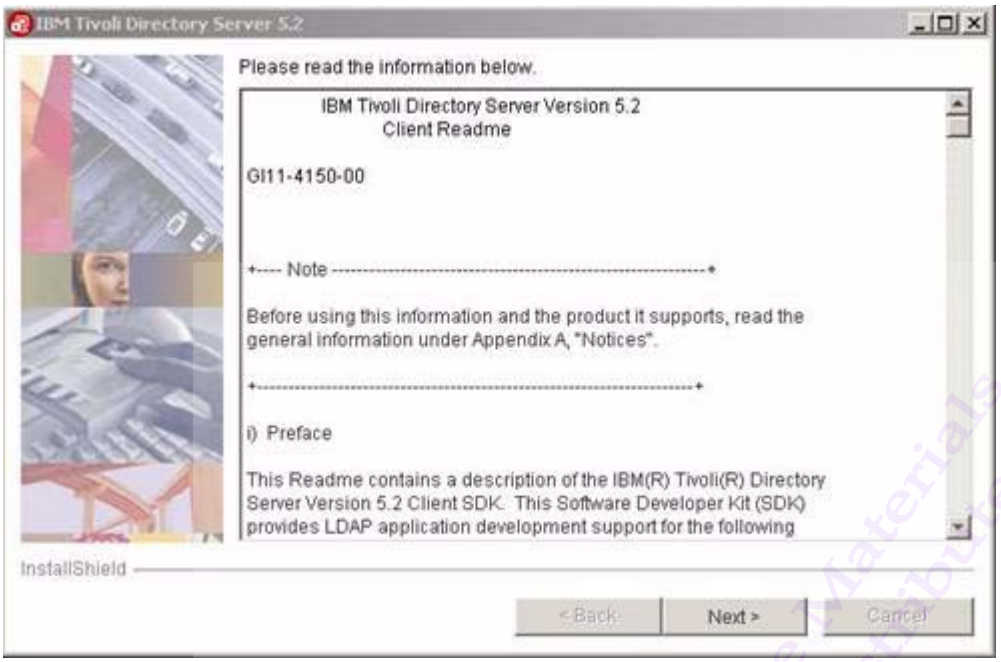

IBM Tivoli Directory Server 5.2
Installing DB2. This background install may take up to 20 minutes, please wait.
InstallShield
< Back
Next >
Cancel

__ 14. If there is any pop-up confirmation message box, click **OK.**

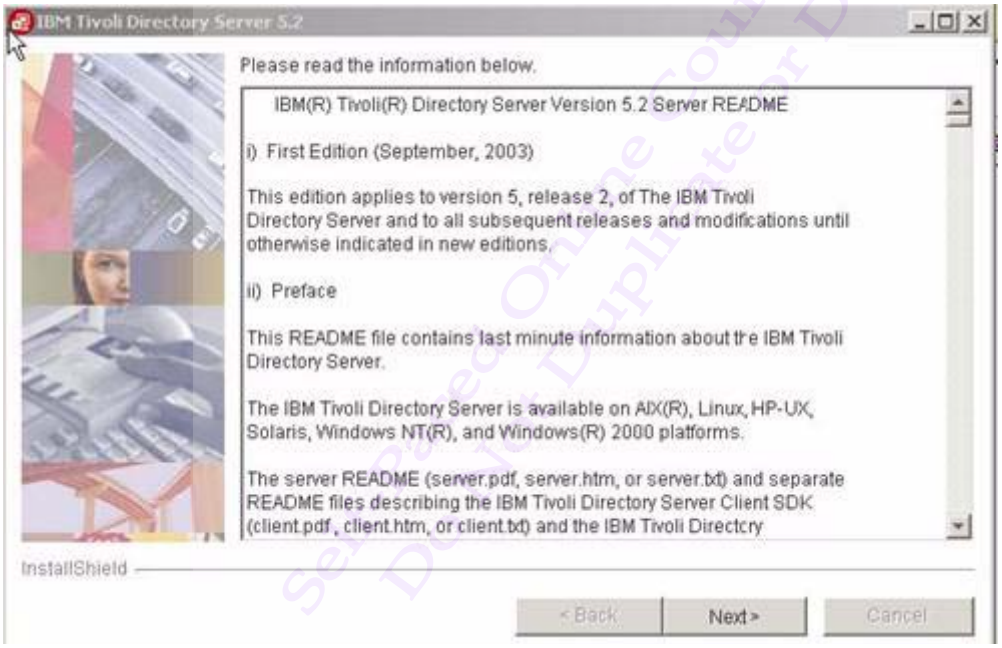
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__ 15. Read the IDS information, and click **Next**.


IBM Tivoli Directory Server 5.2
Please read the information below.
IBM Tivoli Directory Server Version 5.2
Client Readme
GI11-4150-00
+---- Note ----+
Before using this information and the product it supports, read the general information under Appendix A, "Notices".
+----+
i) Preface
This Readme contains a description of the IBM(R) Tivoli(R) Directory Server Version 5.2 Client SDK. This Software Developer Kit (SDK) provides LDAP application development support for the following
InstallShield
< Back
Next >
Cancel

__ 16. Click **Next.**

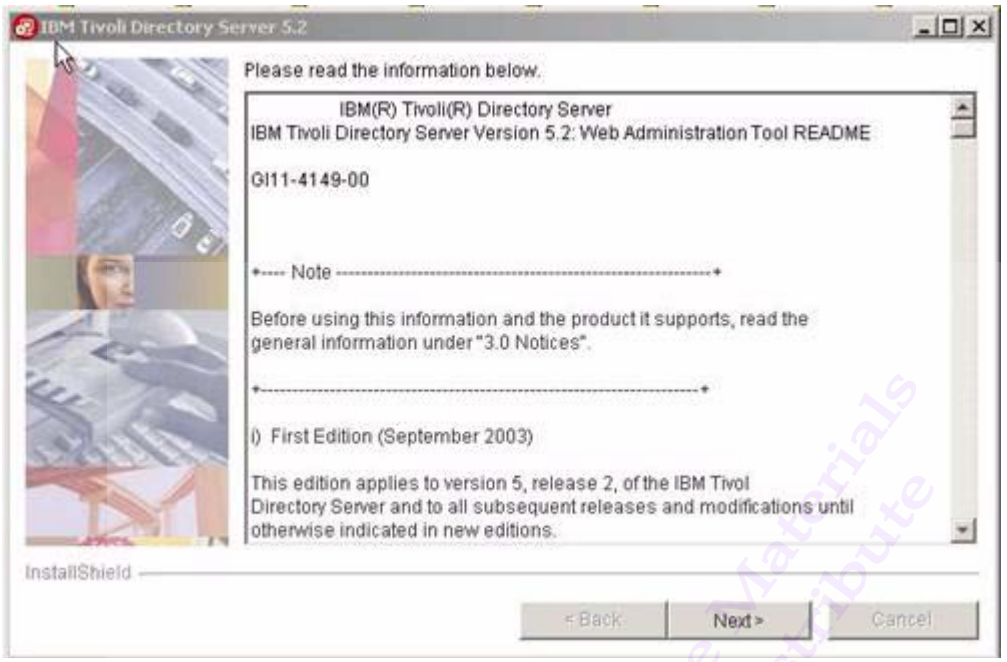

IBM Tivoli Directory Server 5.2
Please read the information below.
IBM(R) Tivoli(R) Directory Server Version 5.2 Server README
i) First Edition (September, 2003)
This edition applies to version 5, release 2, of The IBM Tivoli Directory Server and to all subsequent releases and modifications until otherwise indicated in new editions.
ii) Preface
This README file contains last minute information about the IBM Tivoli Directory Server.
The IBM Tivoli Directory Server is available on AIX(R), Linux, HP-UX, Solaris, Windows NT(R), and Windows(R) 2000 platforms.
The server README (server.pdf, server.htm, or server.txt) and separate README files describing the IBM Tivoli Directory Server Client SDK (client.pdf, client.htm, or client.txt) and the IBM Tivoli Directory
InstallShield
< Back
Next >
Cancel

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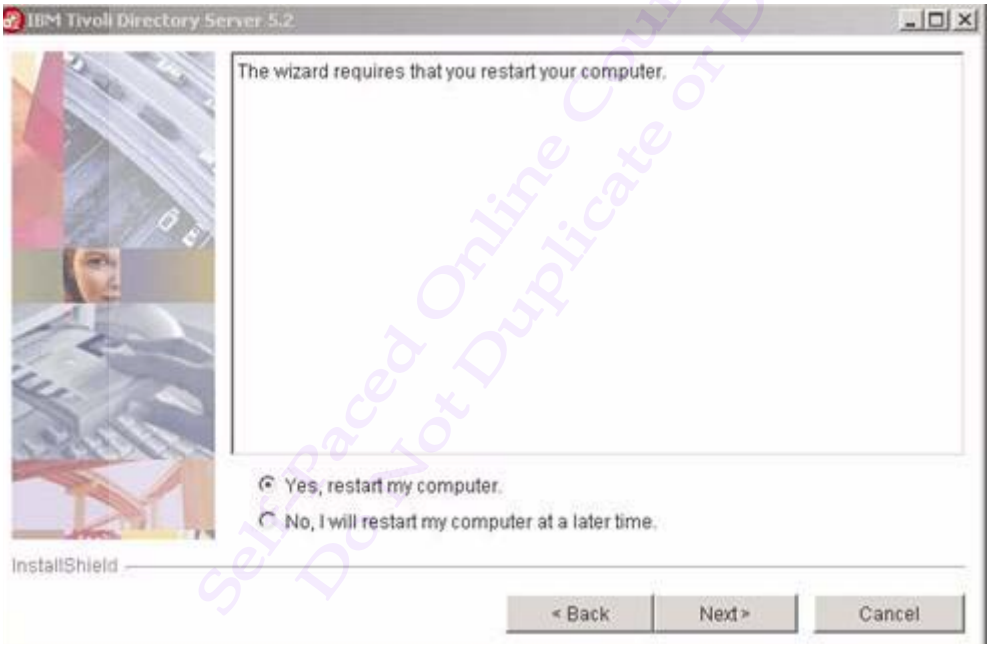
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__ 17. Click **Next**.


IBM Tivoli Directory Server 5.2
Please read the information below.
IBM(R) Tivoli(R) Directory Server
IBM Tivoli Directory Server Version 5.2: Web Administration Tool README
GI11-4149-00
+---- Note ----+
Before using this information and the product it supports, read the general information under "3.0 Notices".
+----+
i) First Edition (September 2003)
This edition applies to version 5, release 2, of the IBM Tivol Directory Server and to all subsequent releases and modifications until otherwise indicated in new editions.
InstallShield
< Back
Next >
Cancel

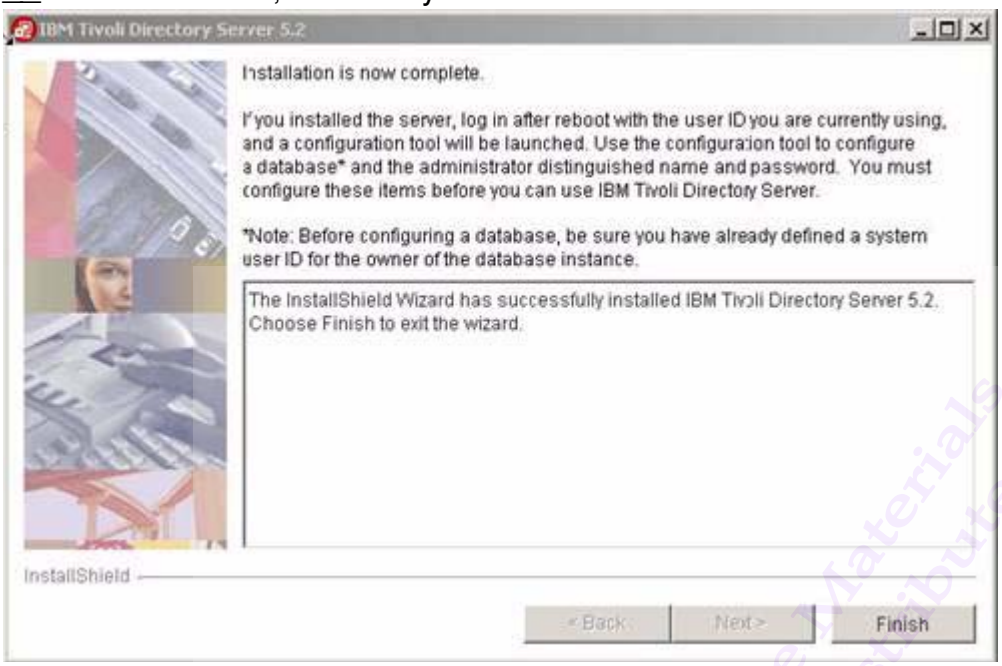
__ 18. Select **Yes** to restart your system, and click **Next**.


IBM Tivoli Directory Server 5.2
The wizard requires that you restart your computer.
Yes, restart my computer.
No, I will restart my computer at a later time.
InstallShield
< Back
Next >
Cancel

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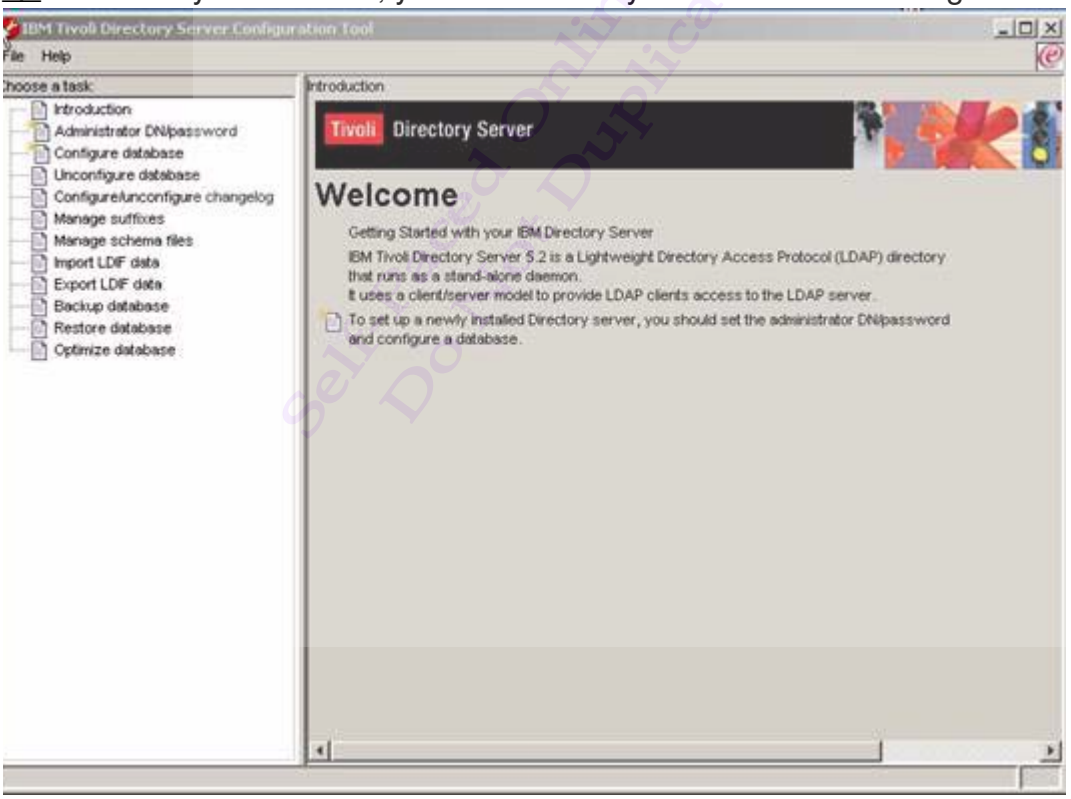
__ 19. Click **Finish**, and the system will start to reboot.


IBM Tivoli Directory Server 5.2
Installation is now complete.
If you installed the server, log in after reboot with the user ID you are currently using, and a configuration tool will be launched. Use the configuration tool to configure a database* and the administrator distinguished name and password. You must configure these items before you can use IBM Tivoli Directory Server.
*Note: Before configuring a database, be sure you have already defined a system user ID for the owner of the database instance.
The InstallShield Wizard has successfully installed IBM Tivoli Directory Server 5.2. Choose Finish to exit the wizard.
InstallShield
< Back
Next >
Finish

Part 2: Configuring LDAP setting

You will configure the LDAP administrator and password, create the directory database, and finish manage suffix configuration.

__ 1. After system reboot, you automatically enter the LDAP configuration window.


IBM Tivoli Directory Server Configuration Tool
File Help
Choose a task:
Introduction
Administrator DN/password
Configure database
Unconfigure database
Configure/unconfigure changelog
Manage suffixes
Manage schema files
Import LDIF data
Export LDIF data
Backup database
Restore database
Optimize database
Introduction
Tivoli Directory Server
Welcome
Getting Started with your IBM Directory Server
IBM Tivoli Directory Server 5.2 is a Lightweight Directory Access Protocol (LDAP) directory that runs as a stand-alone daemon.
It uses a client/server model to provide LDAP clients access to the LDAP server.
To set up a newly installed Directory server, you should set the administrator DN/password and configure a database.

__ 2. Specify administrator DN/password.

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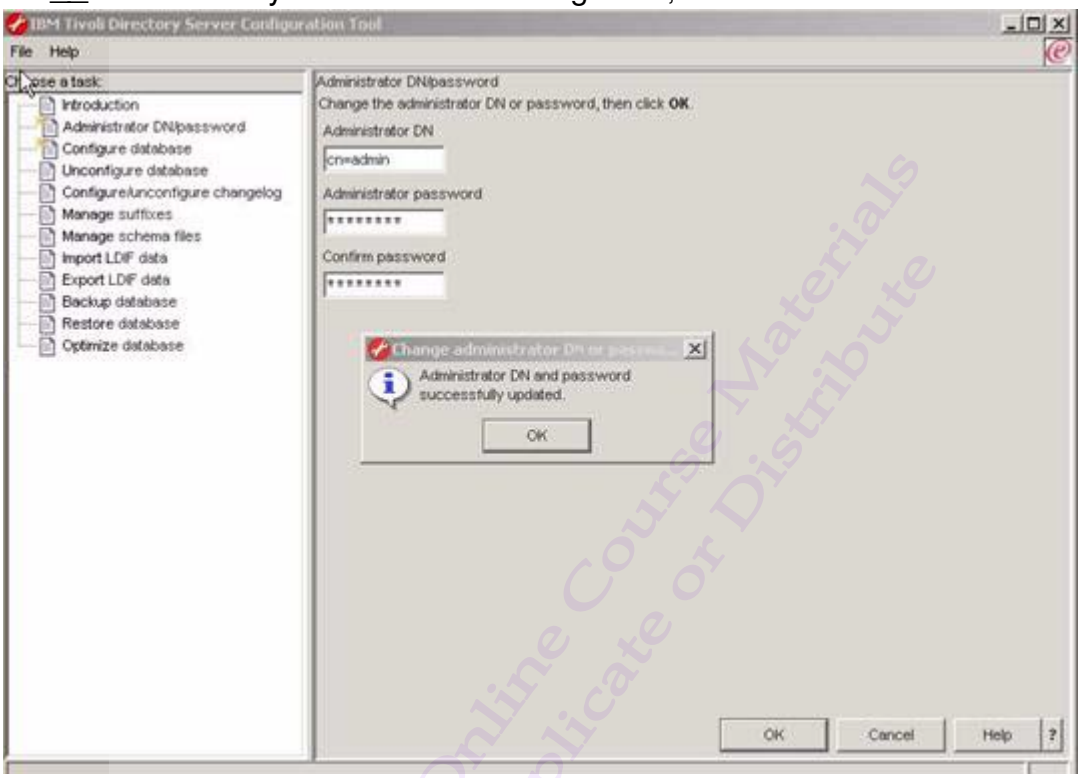
__ a. On the left panel, select **Administrator DN/password**.

__ b. On the right panel, change administrator DN from `cn=root` to `cn=admin`

__ c. Input `password` as password.

__ d. Click **OK**.

__ e. On the system confirm message box, click **OK**

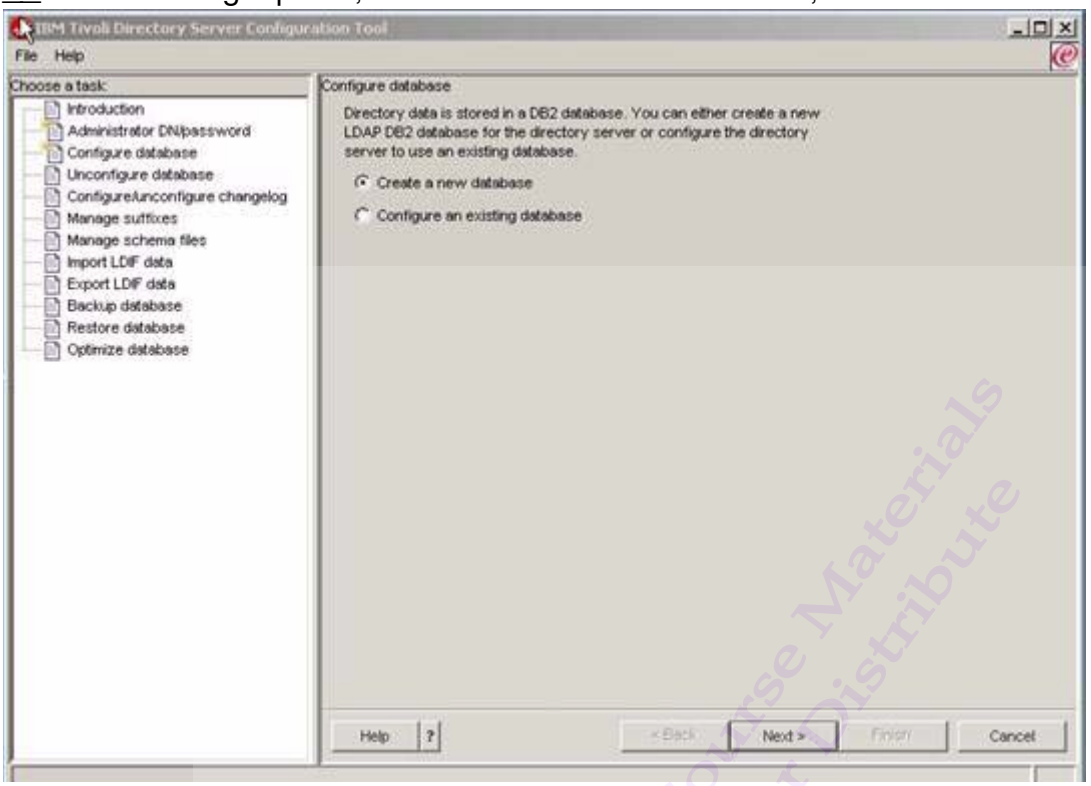


__ 3. Select **Configure Database** on the left panel.

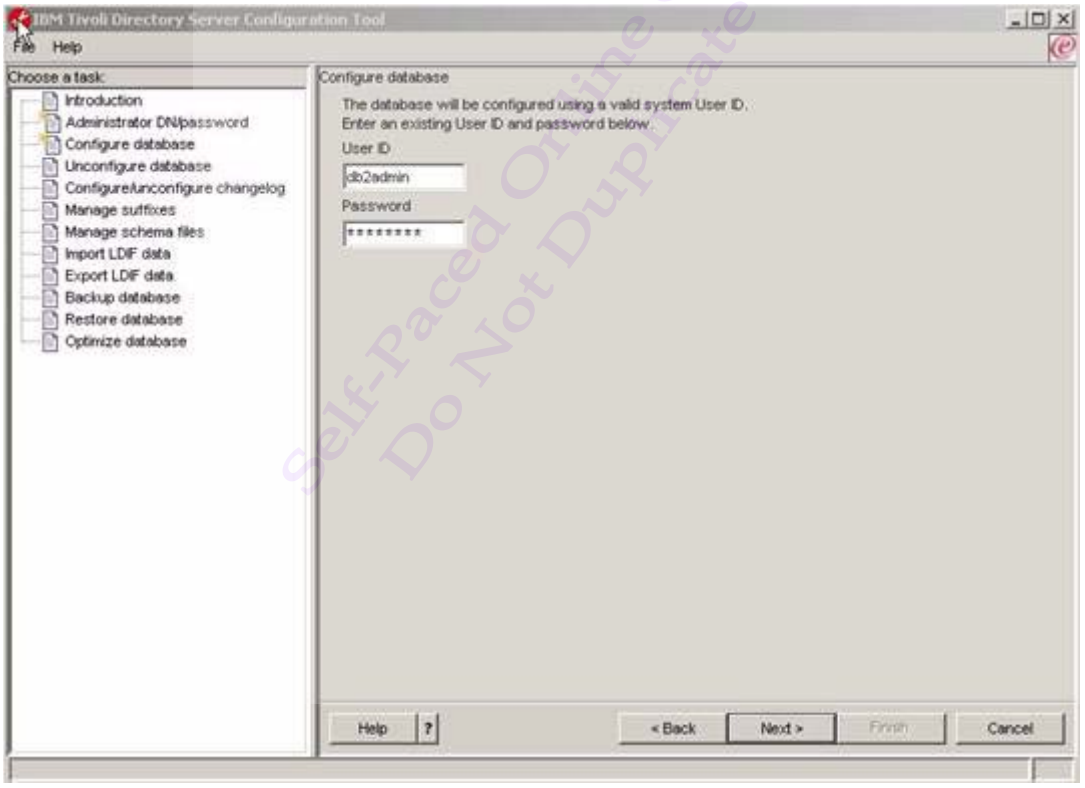
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__ 4. On the right panel, select **Create a new database**, and click **Next**.



__ 5. Input `db2admin` for the user ID and password, and click **Next**.

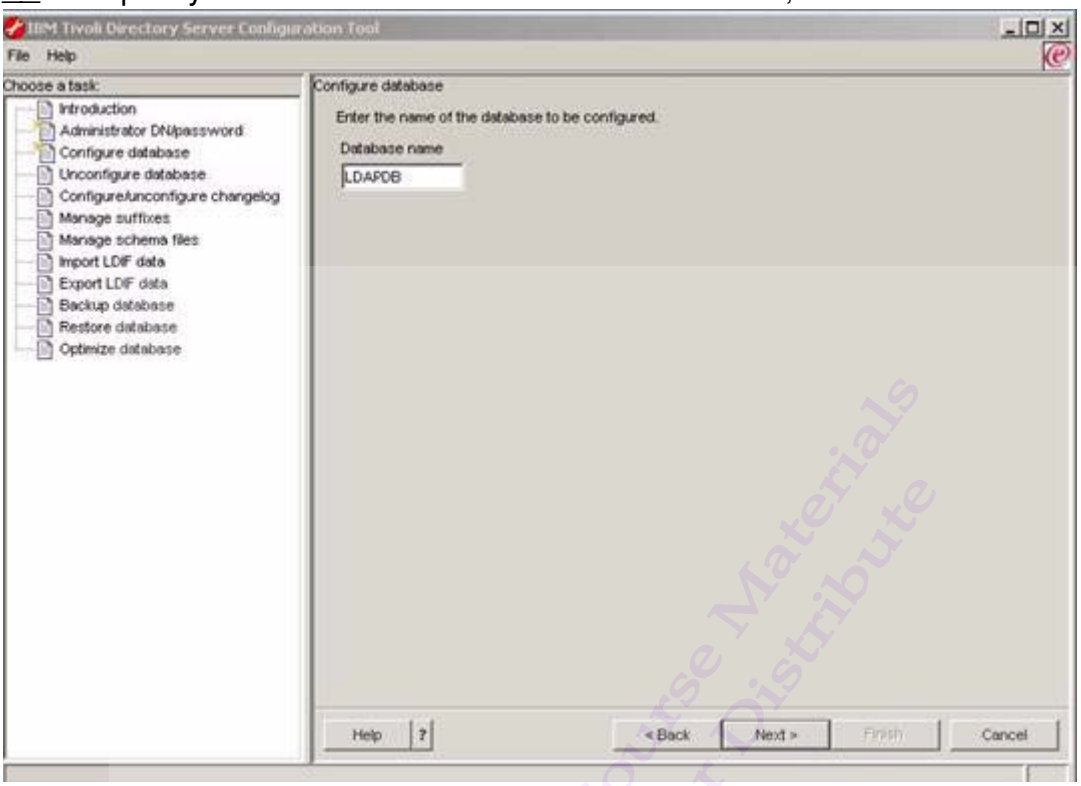


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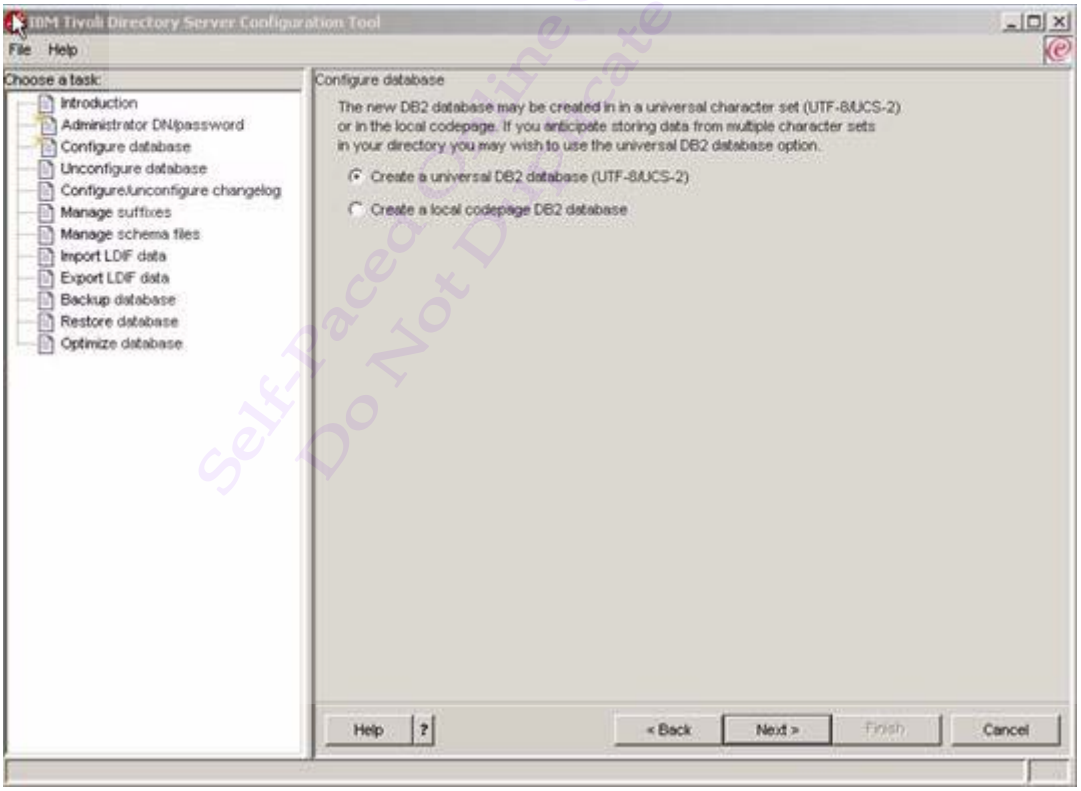
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__ 6. Specify `LDAPDB` as the name of LDAP database, and click **Next**.



__ 7. Select **Create a universal DB2 database (UTF-8/UCF-2)**, and click **Next**.

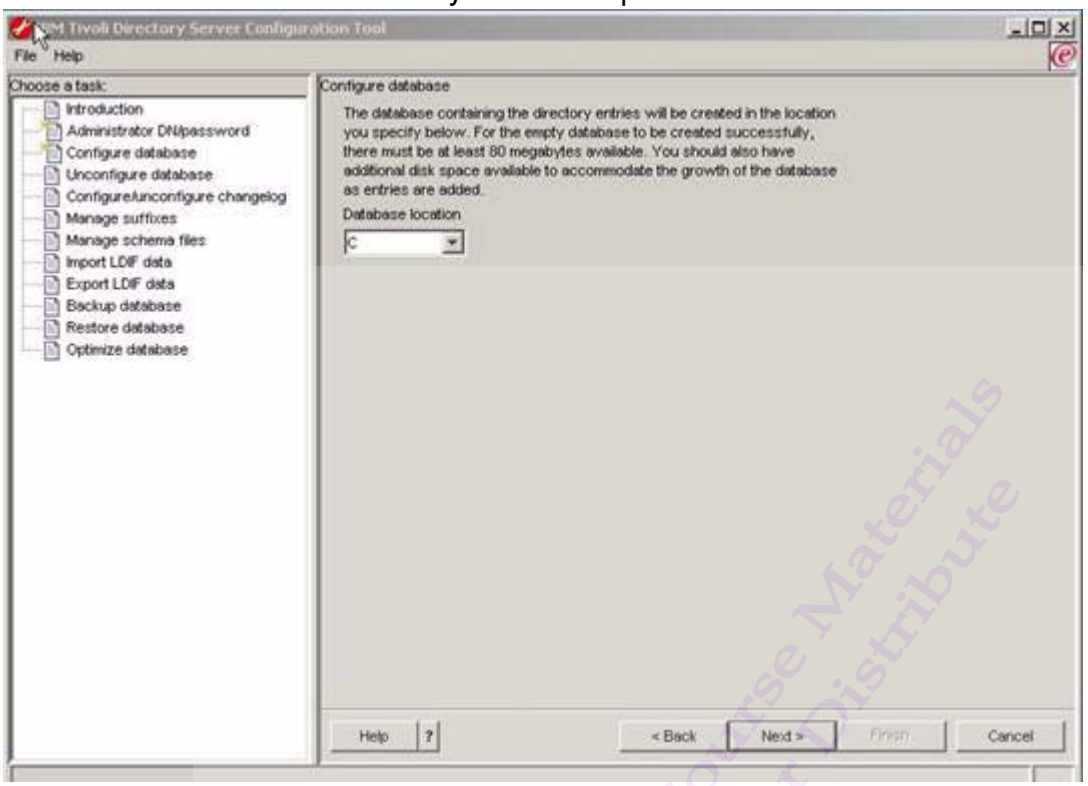


__ 8. Select `c` to be the database location, and click **Next**.

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Note: 80 MB is necessary for this step.

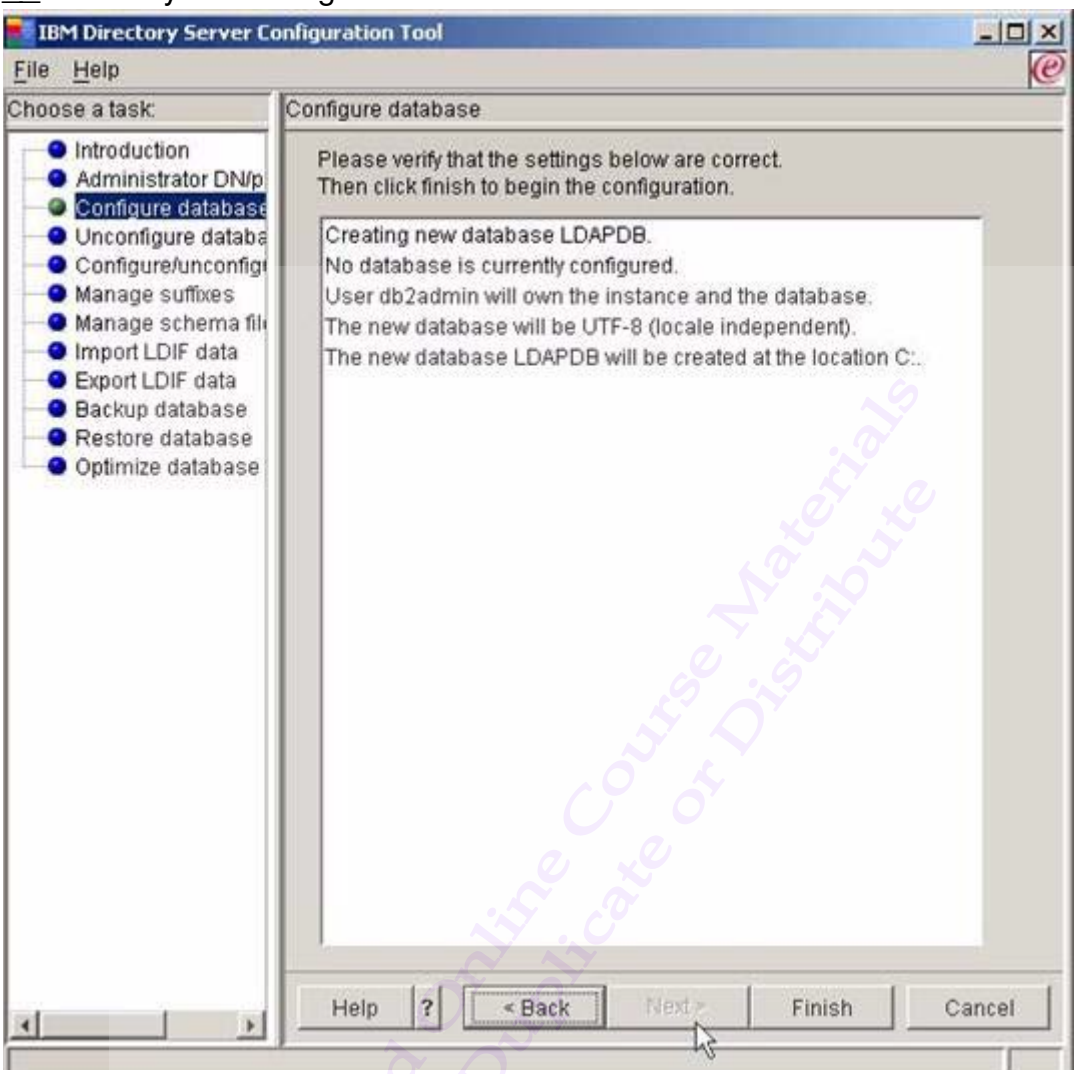

IBM Tivoli Directory Server Configuration Tool
File Help
Choose a task:
Introduction
Administrator DN/password
Configure database
Unconfigure database
Configure/unconfigure changelog
Manage suffixes
Manage schema files
Import LDIF data
Export LDIF data
Backup database
Restore database
Optimize database
Configure database
The database containing the directory entries will be created in the location you specify below. For the empty database to be created successfully, there must be at least 80 megabytes available. You should also have additional disk space available to accommodate the growth of the database as entries are added.
Database location
C
Help
?
< Back
Next >
Finish
Cancel

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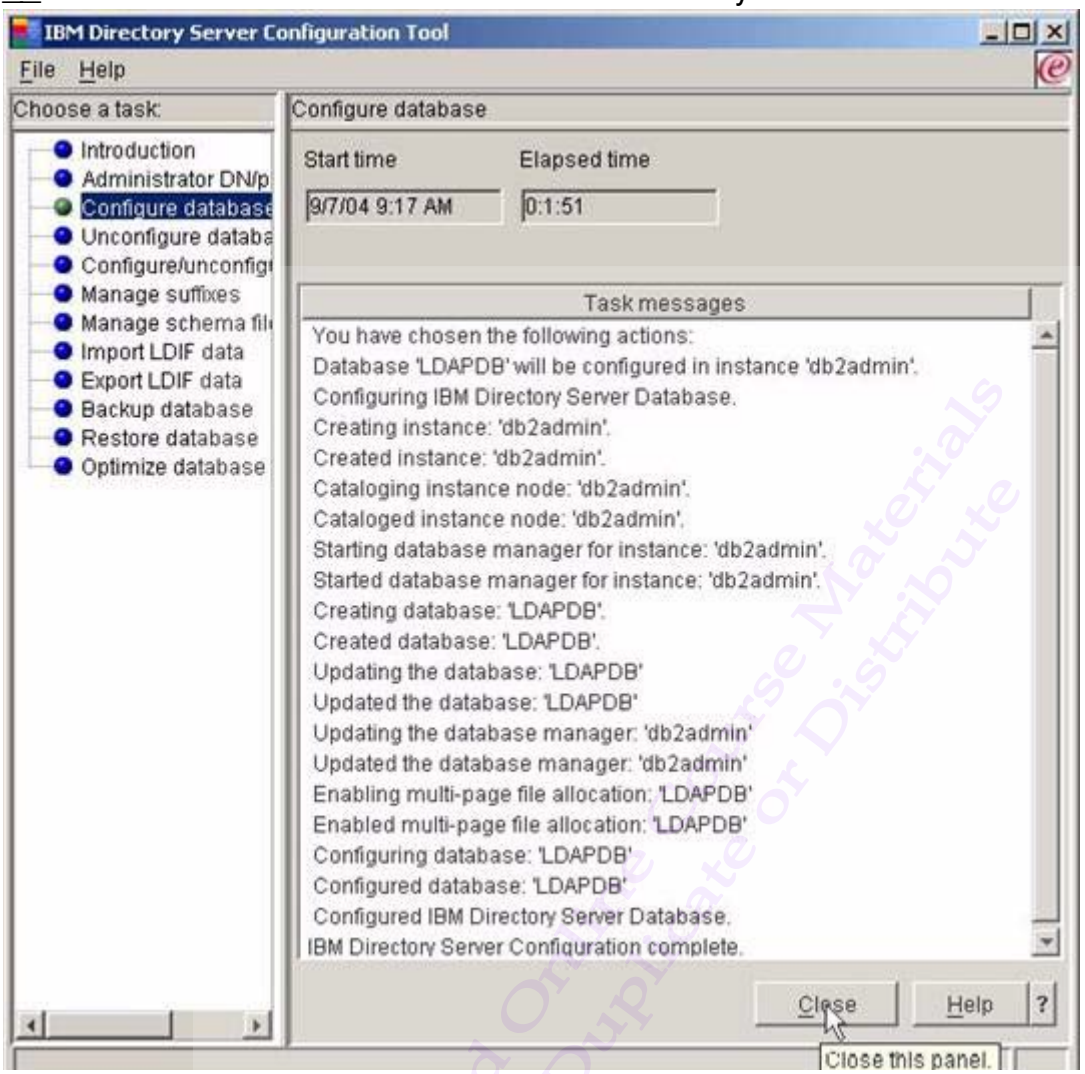
__ 9. Verify the setting information and click **Finish**.



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__ 10. Database creation will then start automatically. Click **Close** when it finishes.



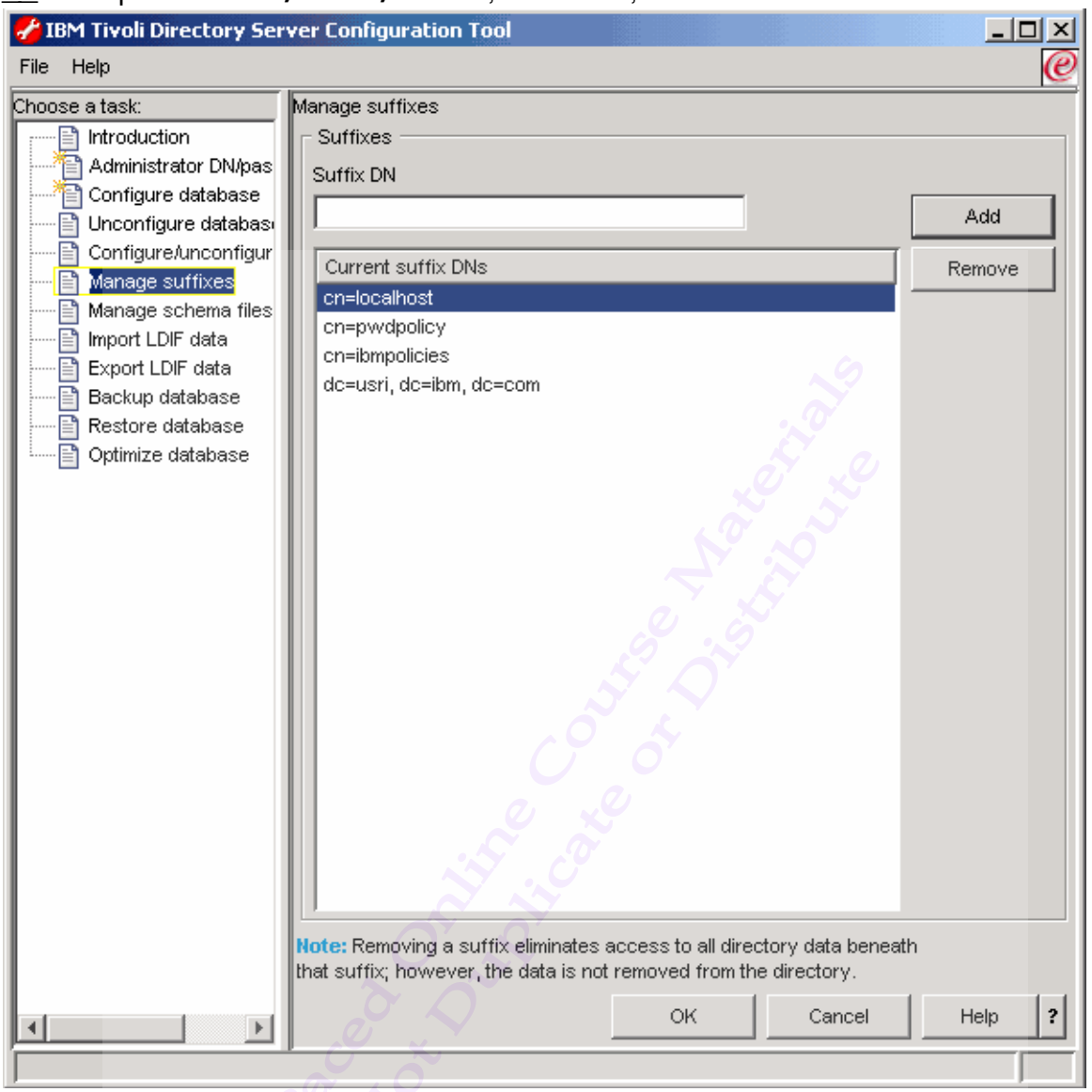
__ 11. On the left panel, select **Manage Suffixes**.

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__ 12. Input `dc=usri,c=ibm,dc=com`, click **Add**, and click **OK**.



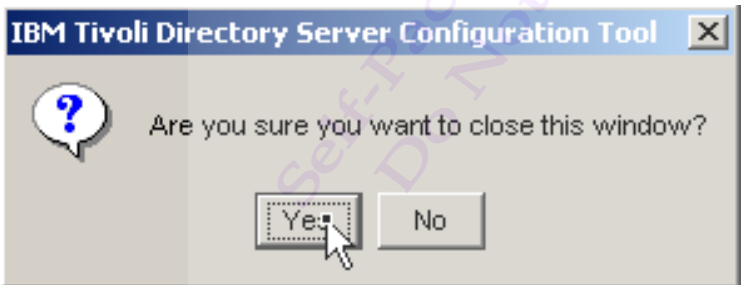
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__ 13. Click the "**X**" on the top right corner of the window to close it.


IBM Directory Server Configuration Tool
File Help
Choose a task:
Introduction
Administrator DN/p
Configure database
Unconfigure databa
Configure/unconfigu
Manage suffixes
Manage schema fil
Import LDIF data
Export LDIF data
Backup database
Restore database
Optimize database
Introduction
Welcome
Getting Started with your IBM Directory Server
IBM Directory Server is a Lightweight Directory Access Protocol (LDAP) directo
that runs as a stand-alone daemon.
It uses a client/server model to provide LDAP clients access to the LDAP serve
To set up a newly installed Directory server, you should set the administrator
and configure a database.

__ 14. Click **Yes** to confirm the exit.



__ 15. Double-click the service shortcut on the desktop.

__ 16. Start IBM Directory Server services.

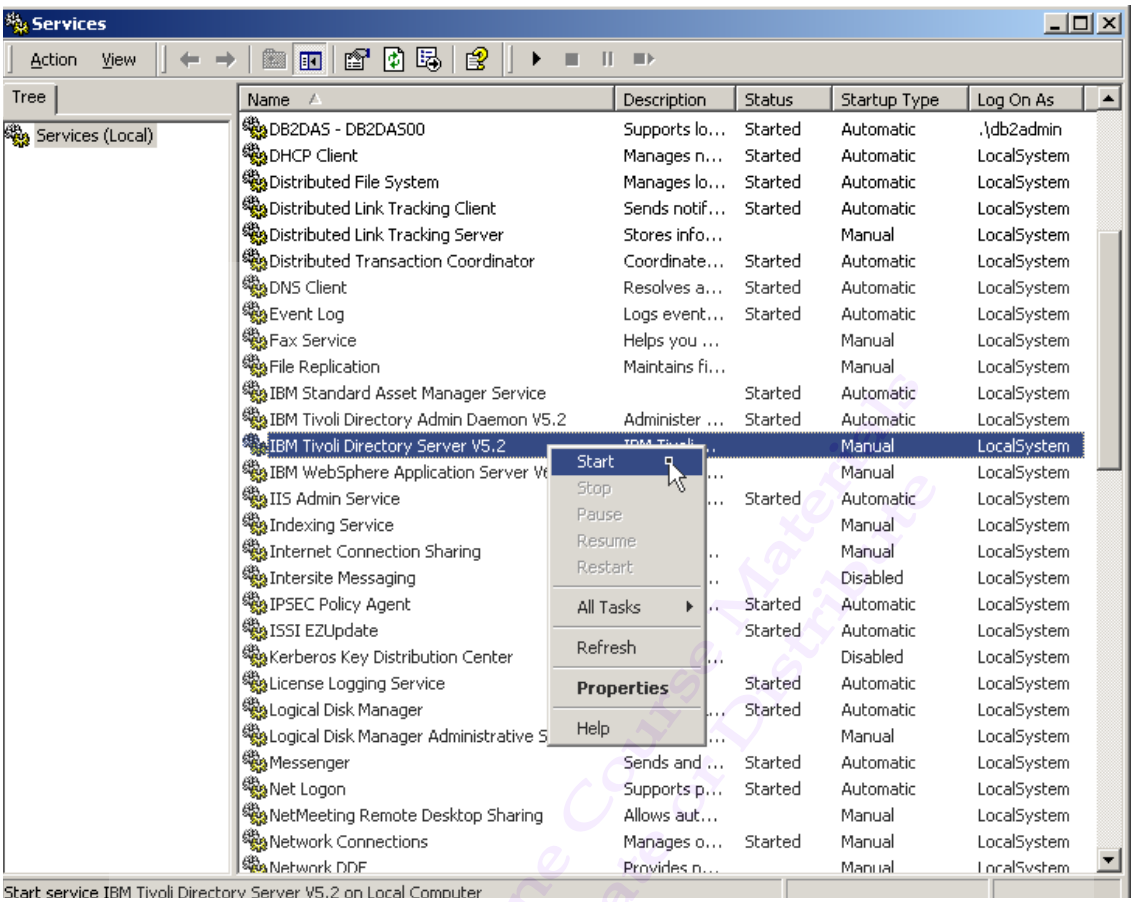
__ a. Right-click **IBM Tivoli Directory Server V5.2.**

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__ b. Select **Start**.



__ 17. Exit Services by clicking the "**X**" on the top right corner of the window.

Part 3: [Optional] Logging into the Web Administration Tool

The sections marked **[Optional] only apply to you if you have WebSphere Application Server – Express 5.0.2 installed successfully, ***and*** you would like to use the Web Administration Tool.**

This section explains how to log into the Web Administration Tool that is installed to administer the IBM Directory Server.

Follow the steps below to use the Web Administration Tool.

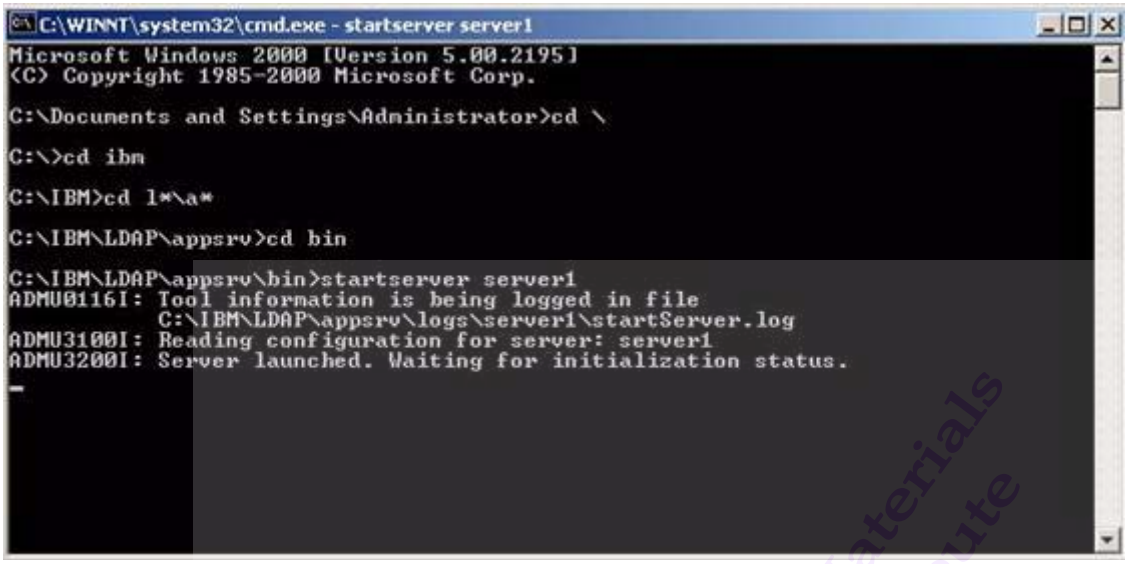
__ 1. Start the embedded version of Application Server Express.

__ a. Open a command prompt.

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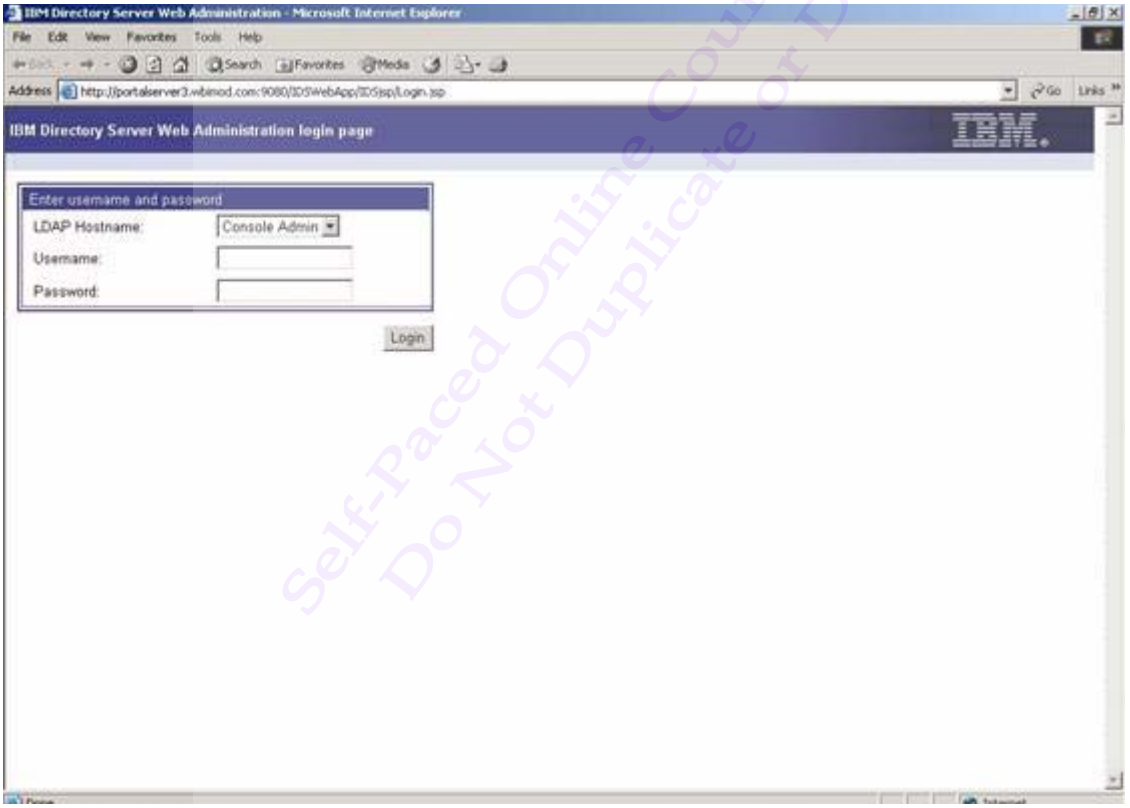
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__ b. Input `C:\IBM\LDAP\appsrv\bin` and press **Enter.**


C:\WINNT\system32\cmd.exe - startserver server1
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.
C:\Documents and Settings\Administrator>cd \
C:\>cd ibm
C:\IBM>cd l*\a*
C:\IBM\LDAP\appsrv>cd bin
C:\IBM\LDAP\appsrv\bin>startserver server1
ADMU0116I: Tool information is being logged in file
C:\IBM\LDAP\appsrv\logs\server1\startServer.log
ADMU3100I: Reading configuration for server: server1
ADMU3200I: Server launched. Waiting for initialization status.

__ c. Input `startServer server1` and press **Enter**.

__ 2. Browse to
`http://wtteapps03.usri.ibm.com:9080/IDSWebApp/IDSjsp/Login.jsp`



__ 3. Log into Web Administrator Tool.

__ a. Select **Console Admin** for the LDAP Hostname

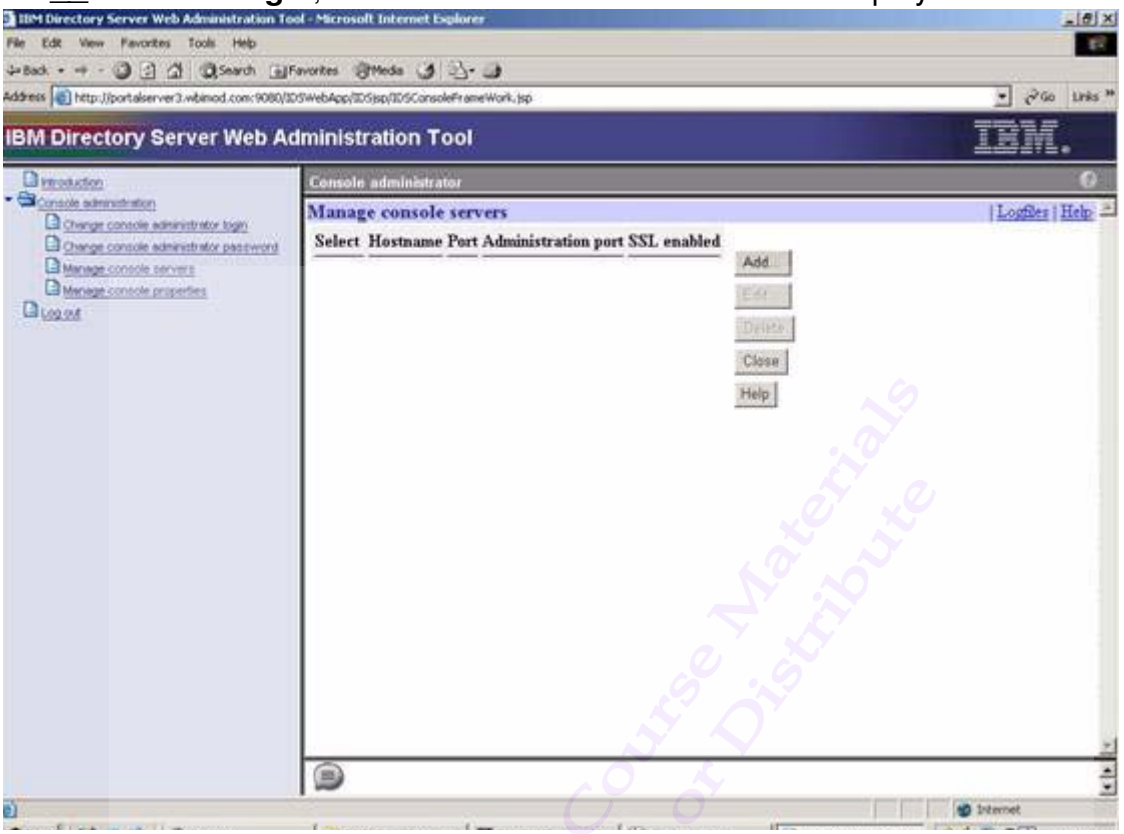
__ b. Enter `superadmin` as the user name field and `secret` as the password.

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__ c. Click **Login**, and the Web Administration Tool is displayed.



Part 4: [Optional] Configuring servers into Web Administrator Tool

The sections marked **[Optional] only apply to you if you have WebSphere Application Server – Express 5.0.2 installed successfully, ***and*** you would like to use the Web Administration Tool.**

This section provides the instructions to configure the LDAP server using Web Administrator Tool.

__ 1. Select the **Manage console server** link, and click **Add**.

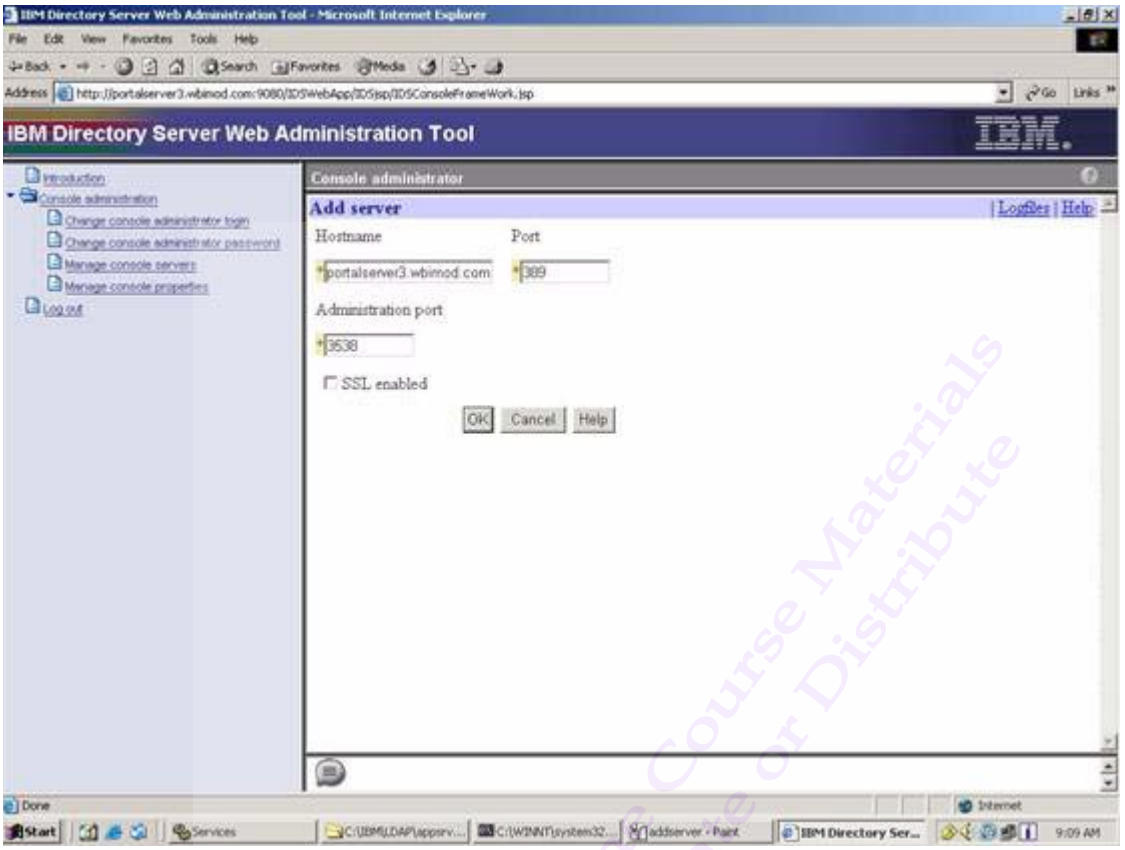
__ 2. Add the LDAP server to the Web Administrator Tool.

__ a. Enter the fully qualified host name of the LDAP server:
`wtteapps03.usri.ibm.com`

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__ b. Accept the default port number and administration port number for the LDAP server.

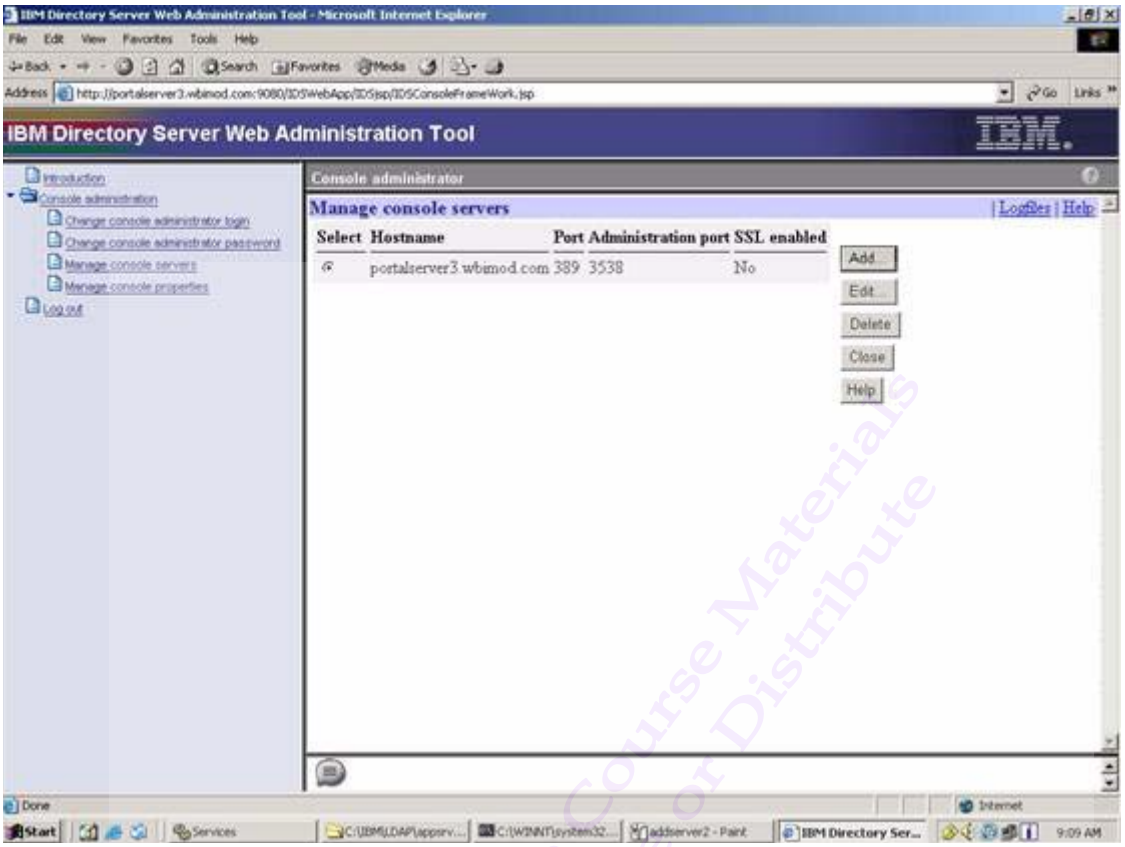


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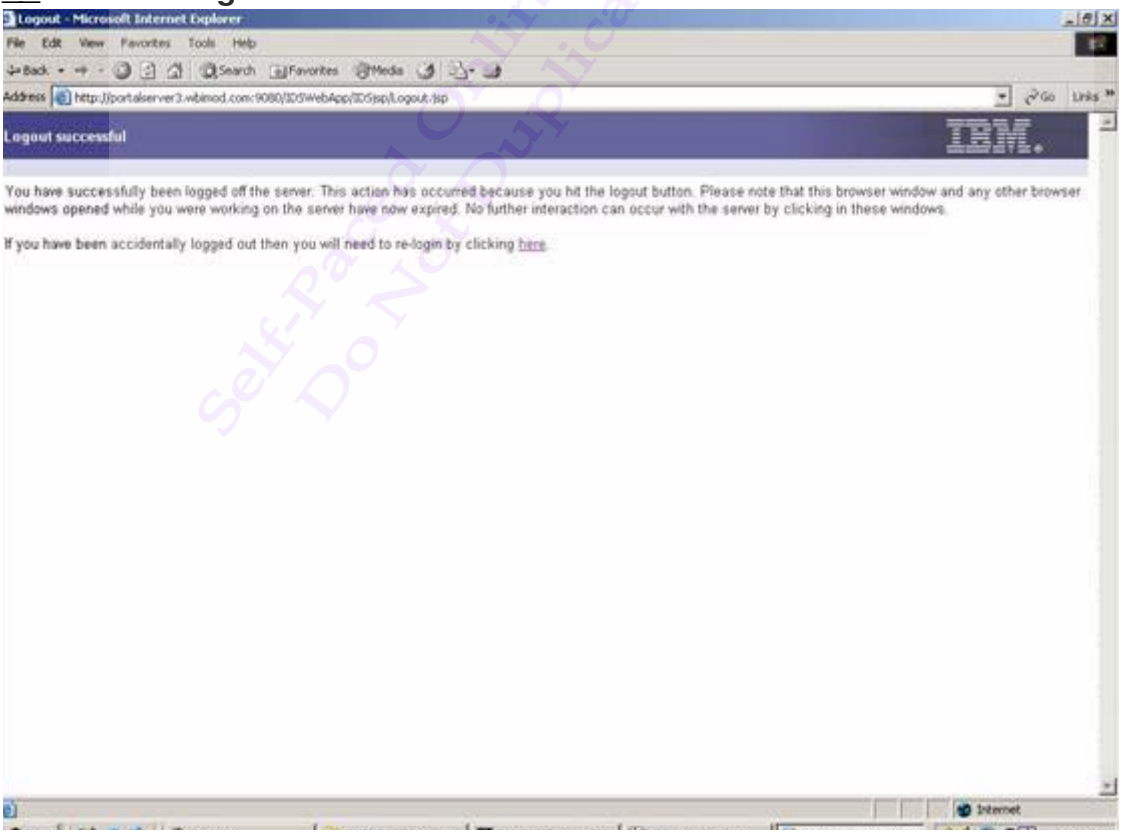
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__ c. Click **OK**.



__ 3. Click **Logout**.


Logout - Microsoft Internet Explorer
Logout successful
You have successfully been logged off the server. This action has occurred because you hit the logout button. Please note that this browser window and any other browser windows opened while you were working on the server have now expired. No further interaction can occur with the server by clicking in these windows.
If you have been accidentally logged out then you will need to re-login by clicking here.

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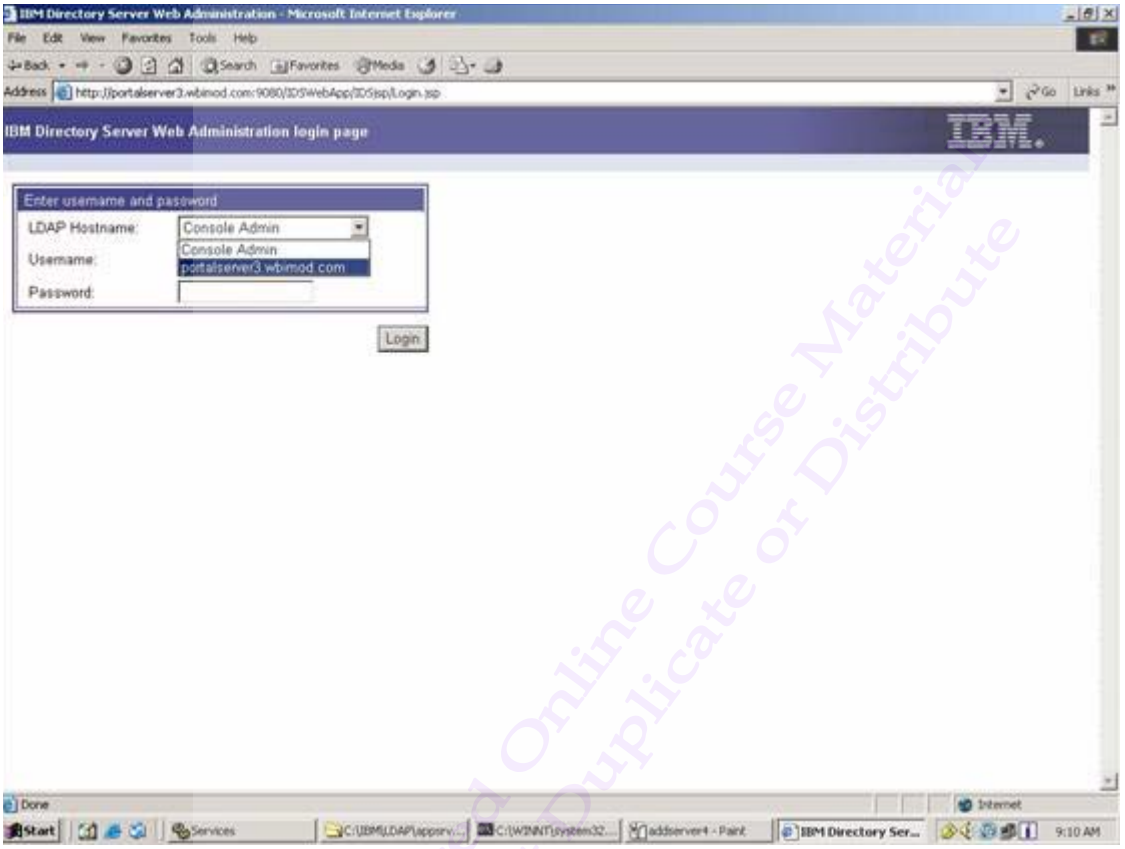
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Part 5: [Optional] Logging into the LDAP server

The sections marked **[Optional] only apply to you if you have WebSphere Application Server – Express 5.0.2 installed successfully, ***and*** you would like to use the Web Administration Tool.**

__ 1. Log into the LDAP server.

__ a. Select the LDAP server host name in the **LDAP Hostname.**

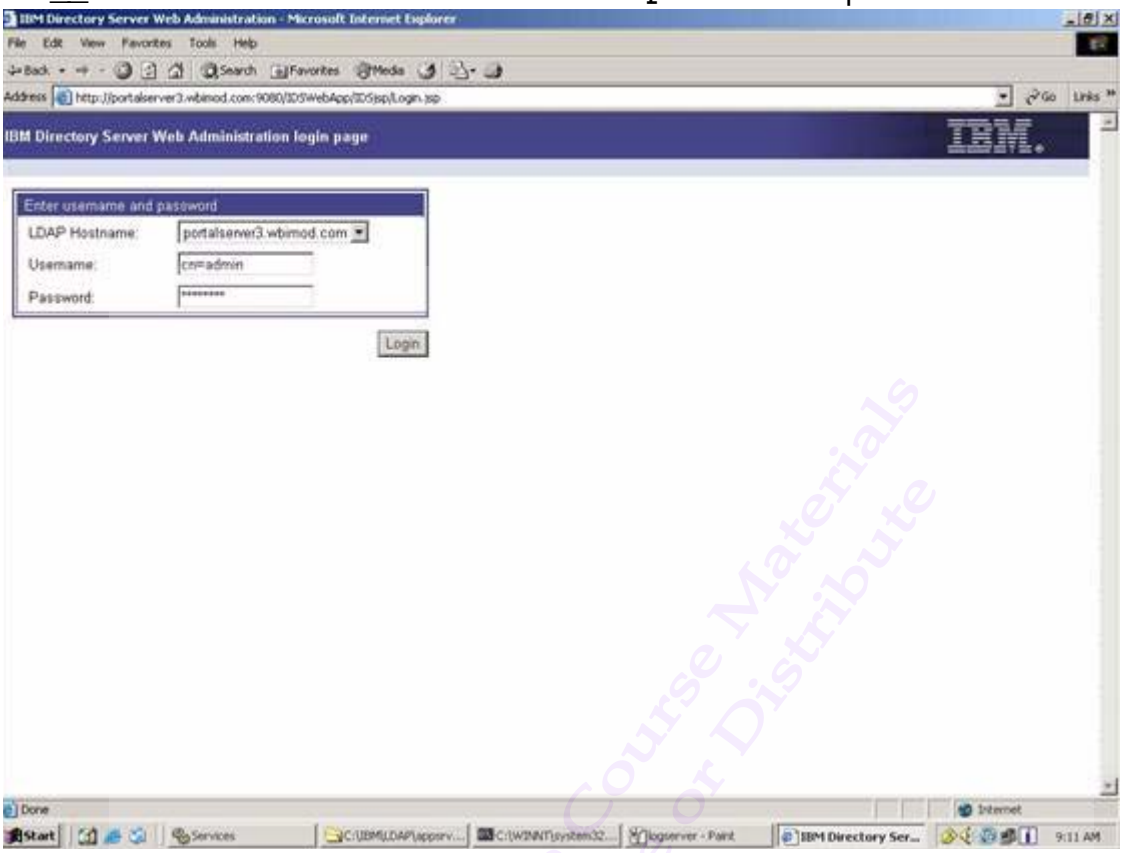


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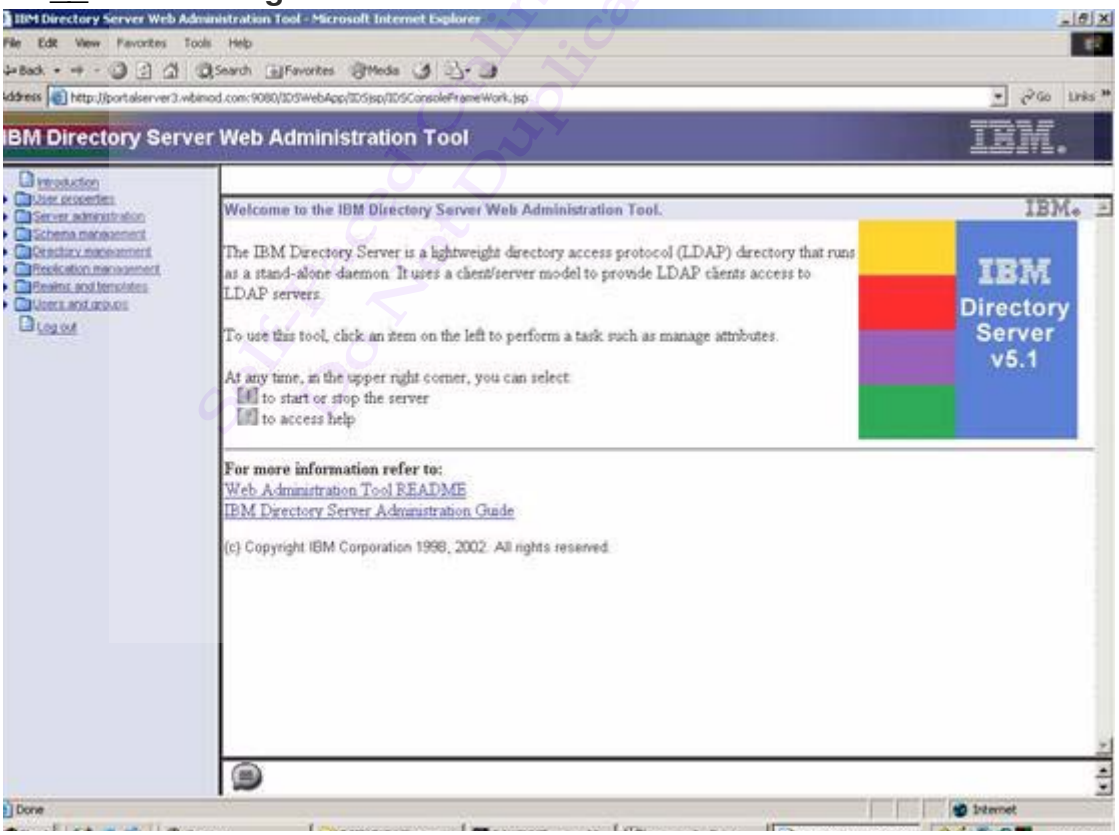
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__ b. Use `cn=admin` for Username and `password` for password.



__ c. Click **Login**.


IBM Directory Server Web Administration Tool - Microsoft Internet Explorer
IBM Directory Server Web Administration Tool
Welcome to the IBM Directory Server Web Administration Tool.
The IBM Directory Server is a lightweight directory access protocol (LDAP) directory that runs as a stand-alone daemon. It uses a client/server model to provide LDAP clients access to LDAP servers.
To use this tool, click an item on the left to perform a task such as manage attributes.
At any time, in the upper right corner, you can select:
to start or stop the server
to access help
IBM Directory Server v5.1
For more information refer to:
Web Administration Tool README
IBM Directory Server Administration Guide
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Part 6: [Optional] Adding the Suffix for Portal

The sections marked **[Optional] only apply to you if you have WebSphere Application Server – Express 5.0.2 installed successfully, ***and*** you would like to use the Web Administration Tool.**

If you have configure the suffix in the configuration step after installation, you can ignore the step.

__ 1. Expand the **Server administration** link.

__ 2. Select **Manage server properties**.

__ 3. Select **Suffixes** on the Manage Server properties window.

__ 4. Enter the suffix value `dc=usri,dc=ibm,dc=com`, and click **Add**.

__ 5. Click **OK** to save the changes.

__ 6. Stop and start the LDAP server.

__ a. Expand **Server administration**.

__ b. Select **Start/stop/restart Server** on the left side of the Web Administration Tool window.

__ c. Click **Stop** and then **Start**. Look for the Server started message at the bottom of the window.

Part 7: Create the required users and groups

The WebSphere Portal requires an administrator user, a bind user, and an administrator group. The PortalUsers.ldif file contains the required users and group for a basic Portal environment. This file can be found on the Portal Setup CD.

__ 1. Copy the PortalUsers.ldif file to `C:\`

__ 2. Edit the PortalUsers.ldif for importing it to the LDAP server.

__ a. Open the PortalUsers.ldif in Notepad or Textpad.

__ b. Replace all entries of `dc=yourco,dc=com` with the suffix `dc=usri,dc=ibm,dc=com`.

Note: You might want to enter a different password for wpsadmin and wpsbind users, it would be more difficult to change them later.

__ 3. Make sure that the LDAP server is stopped.

__ a. Double-click the service shortcut on the desktop

__ b. Start IBM Directory Server services.

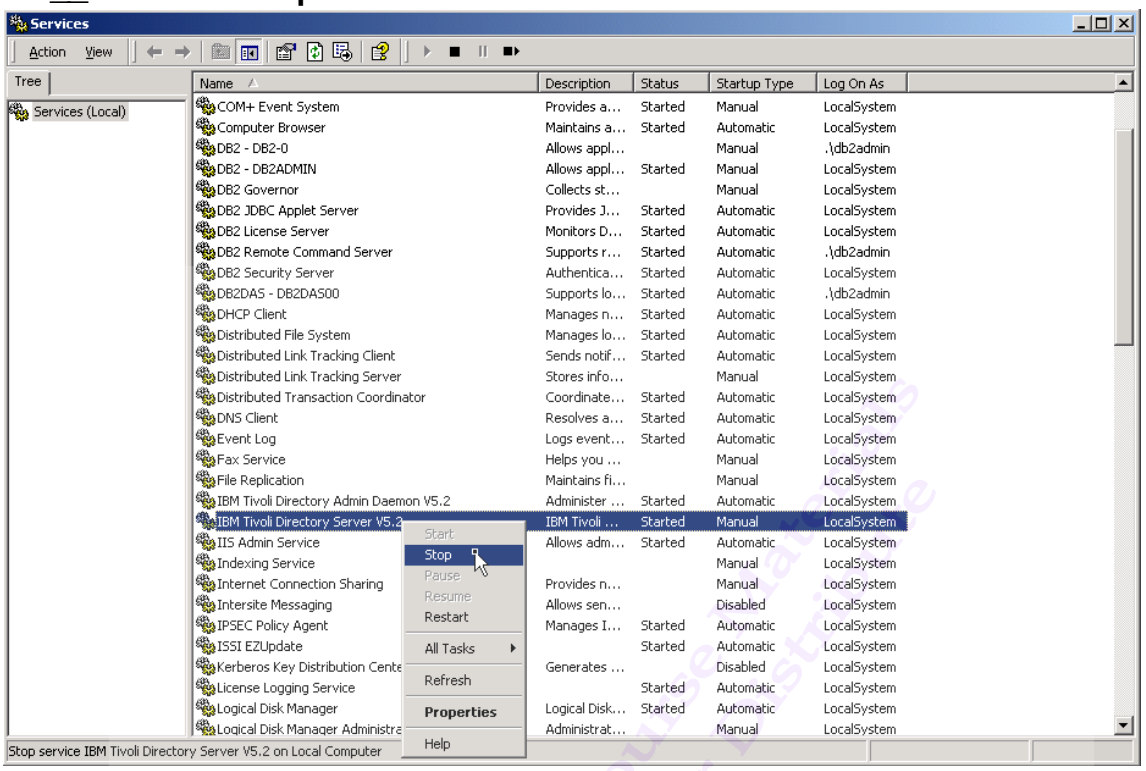
__ c. Right-click **IBM Tivoli Directory Server V5.2.**

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__ d. Select **Stop**.



__ 4. Import the ldif file

__ a. Open a command Prompt, if you have not done so.

__ b. Input `cd C:\IBM\LDAP\bin`, and press Enter.

__ c. Input `ldif2db -i C:\PortalUsers.ldif`, and press **Enter.**

The message below indicates that the ldif file was successfully imported:

```
Microsoft Windows 2000 [Version 5.00.2195]
(C) Copyright 1985-2000 Microsoft Corp.

C:\Documents and Settings\Administrator>cd C:\IBM\LDAP\bin

C:\IBM\LDAP\bin>ldif2db -i C:\PortalUsers.ldif
Plugin of type DATABASE is successfully loaded from C:/IBM/LDAP/bin/libback-conf
ig.dll.
ldif2db: 6 entries have been successfully added out of 6 attempted.

C:\IBM\LDAP\bin>_
```

__ 5. Start the LDAP server.

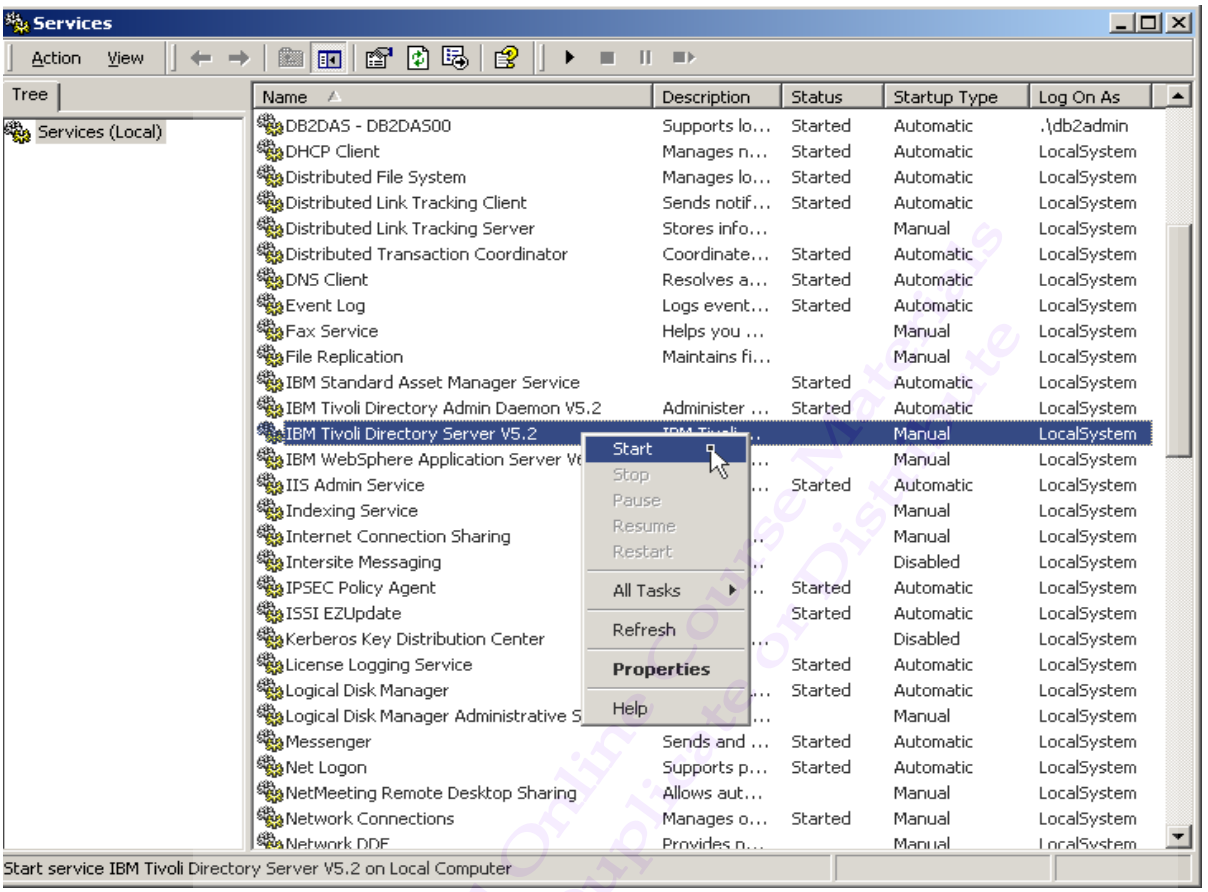
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__ a. Double-click the service shortcut on the desktop to open the Service window, if you have not done so.

__ b. Right-click **IBM Tivoli Directory Server V5.2.**

__ c. Select **Start**.


Services
Action View
Tree
Services (Local)
Name Description Status Startup Type Log On As
DB2DAS - DB2DAS00 Supports lo... Started Automatic .\db2admin
DHCP Client Manages n... Started Automatic LocalSystem
Distributed File System Manages lo... Started Automatic LocalSystem
Distributed Link Tracking Client Sends notif... Started Automatic LocalSystem
Distributed Link Tracking Server Stores info... Manual LocalSystem
Distributed Transaction Coordinator Coordinate... Started Automatic LocalSystem
DNS Client Resolves a... Started Automatic LocalSystem
Event Log Logs event... Started Automatic LocalSystem
Fax Service Helps you ... Manual LocalSystem
File Replication Maintains fi... Manual LocalSystem
IBM Standard Asset Manager Service Started Automatic LocalSystem
IBM Tivoli Directory Admin Daemon V5.2 Administer ... Started Automatic LocalSystem
IBM Tivoli Directory Server V5.2 Manual LocalSystem
IBM WebSphere Application Server V Manual LocalSystem
IIS Admin Service Started Automatic LocalSystem
Indexing Service Manual LocalSystem
Internet Connection Sharing Manual LocalSystem
Intersite Messaging Disabled LocalSystem
IPSEC Policy Agent Started Automatic LocalSystem
ISSI EZUpdate Started Automatic LocalSystem
Kerberos Key Distribution Center Disabled LocalSystem
License Logging Service Started Automatic LocalSystem
Logical Disk Manager Started Automatic LocalSystem
Logical Disk Manager Administrative S Manual LocalSystem
Messenger Sends and ... Started Automatic LocalSystem
Net Logon Supports p... Started Automatic LocalSystem
NetMeeting Remote Desktop Sharing Allows aut... Manual LocalSystem
Network Connections Manages o... Started Manual LocalSystem
Network DDE Provides n... Manual LocalSystem
Start
Stop
Pause
Resume
Restart
All Tasks
Refresh
Properties
Help
Start service IBM Tivoli Directory Server V5.2 on Local Computer

Part 8: Critical check point for LDAP

__ 1. Validate the LDIF import.

__ a. Open a command prompt, if you have not done so.

__ b. Input `cd C:\IBM\LDAP\bin\`, and press **Enter**.

__ c. Input the ldapsearch command below in one line:

```
ldapsearch -b "dc=usri,dc=ibm,dc=com"-h "wtteapps03.usri.ibm.com" -D
"uid=wpsbind,dc=usri,dc=ibm,dc=com"-w
"wpsbind""(&(uid=wpsadmin)(objectclass=inetOrgPerson))"
```

__ d. Press **Enter** to execute.

__ 2. There is another way to validate the LDIF import. If you have done it in step 1, you can omit this step.

__ a. Open a browser window.

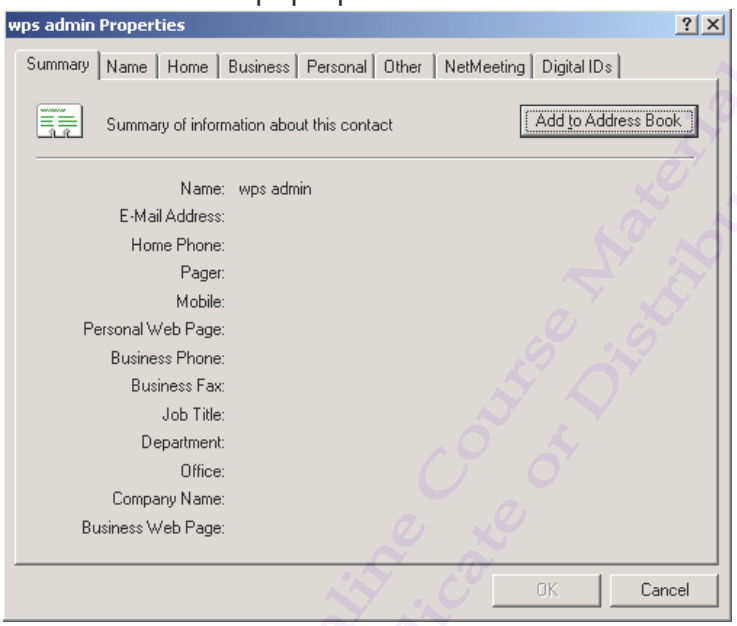
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__ b. Enter the following URLs to bring up the details of the users and group you just created:

- `ldap://wtteapps03.usri.ibm.com/uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com`
- `ldap://wtteapps03.usri.ibm.com/uid=wpsbind,dc=usri,dc=ibm,dc=com`
- `ldap://wtteapps03.usri.ibm.com/cn=wpsadmins,cn=groups,dc=usri,dc=ibm,dc=com`

You should see a pop-up window for each command line similar to the following:



Part 9: Portal enable security

__ 1. Make sure there are at least two users named `wpsadmin` and `wpsbind`.

__ 2. Start WebSphere Applicaion Server and the WebSphere Portal Server.

__ a. Open a command prompt, if you have not done so.

__ b. Input `cd C:\WebSphere\AppServer\profiles\AppSrv01\bin`, and press **Enter**.

__ c. Input `startServer server1`, and press **Enter.**

__ d. Wait until server1 starts successfully.

__ e. Input `startServer WebSphere_Portal`, and press **Enter**.

__ 3. Edit the wpconfig.properties file.

__ a. Browse to `C:\WebSphere\PortalServer\config`.

__ b. Locate and open the wpconfig.properties file with Notepad.

__ c. Edit the values of the items listed below:

Property	Value
WasUserid	`uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com`

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WasPassword	wpsadmin
WpsHostName	wtteapps03.usri.ibm.com
CellName	wtteapps03Node01Cell // Fill in according to your WebSphere Application Server configuration; the cell name should be a directory name of your WAS../profile directory.
NodeName	wtteapps03Node01
PortalAdminId	uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com
PortalAdminIdShort	wpsadmin
PortalAdminPwd	wpsadmin
PortalAdminGroupId	cn=wpsadmins,cn=groups,dc=usri,dc=ibm,dc=com
WpsContentAdministrators	cn=wpsadmins,cn=groups,dc=usri,dc=ibm,dc=com
WpsContentAdministratorsShort	wpsadmins
WpsDocReviewer	uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com
WpsDocReviewerShort	wpsadmin
LCC.DominoDirectory.Enabled	False
LTPAPassword	password
LookAside	true
LDAPHostName	wtteapps03.usri.ibm.com
LDAPAdminUId	cn=admin
LDAPAdminPwd	password
LDAPServerType	IBM_DIRECTORY_SERVER
LDAPBindID	uid=wpsbind,dc=usri,dc=ibm,dc=com
LDAPBindPassword	wpsbind
WmmSystemId	uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com
WmmSystemIdPassword	wpsadmin
LDAPSuffix	dc=usri,dc=ibm,dc=com
LdapUserPrefix	uid
LDAPUserSuffix	cn=users
LdapGroupPrefix	cn
LDAPGroupSuffix	cn=groups
LDAPUserObjectClass	inetOrgPerson
LDAPGroupObjectClass	groupOfUniqueNames
LDAPGroupMember	uniqueMember
LDAPUserFilter	(&(uid=%v)(objectclass=inetOrgPerson))
LDAPGroupFilter	(&(cn=%v)(objectclass=groupOfUniqueNames))

__ 4. Open a command prompt, if you have not done so.

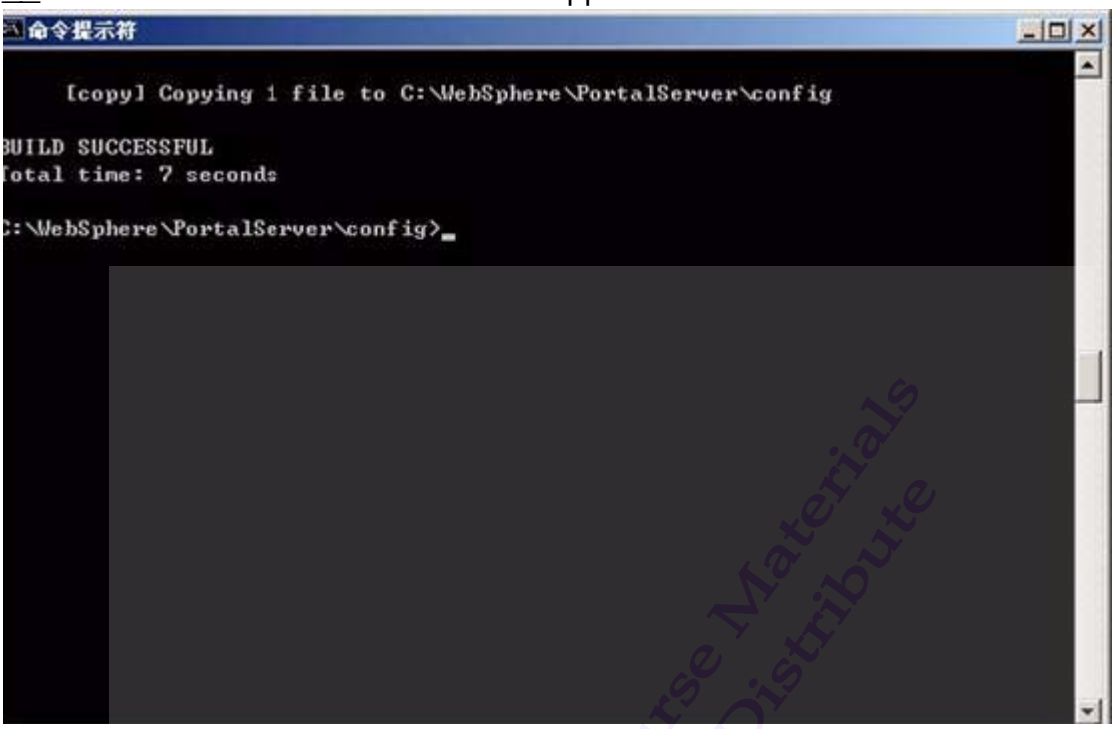
__ 5. Input `cd C:\WebSphere\PortalServer\config`, and press **Enter.**

__ 6. Input `WPSConfig.bat backup-main-cfg-file`, and press **Enter.**

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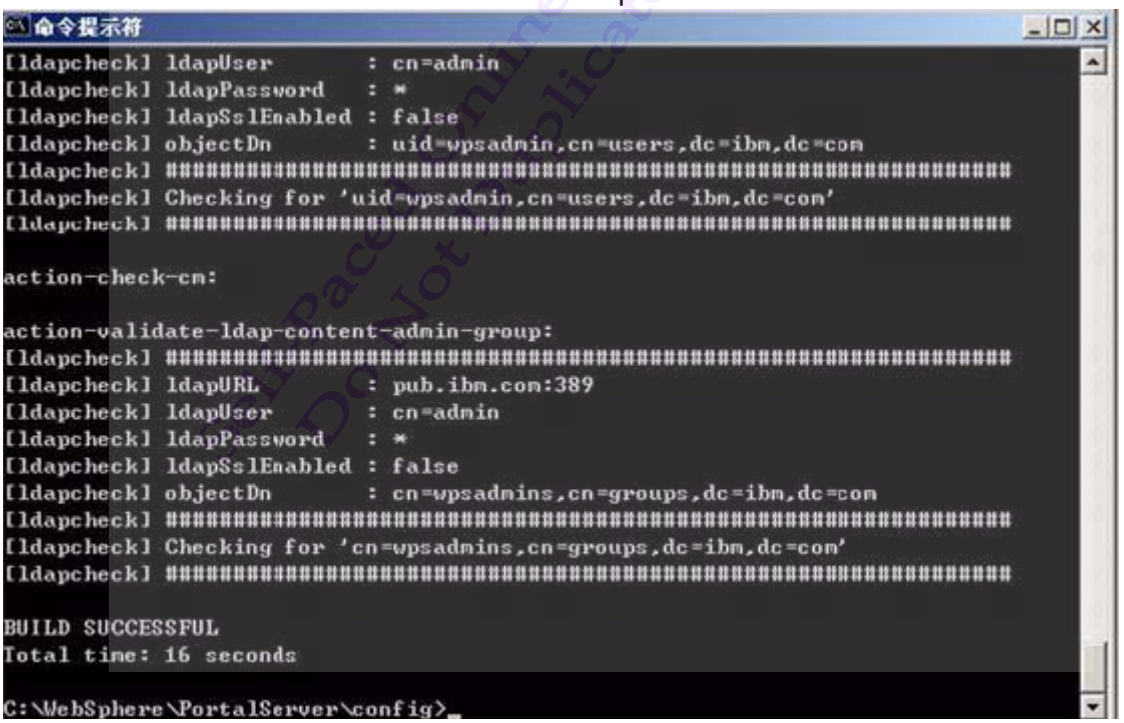
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__ 7. Wait for `BUILD SUCCESSFUL` to appear.



__ 8. At the command prompt, input `WPSConfig.bat validate-ldap` and press **Enter**.

__ 9. Ensure the appearance of `BUILD SUCCESSFUL` before continuing to the next step. Otherwise check the Internet ID and password.

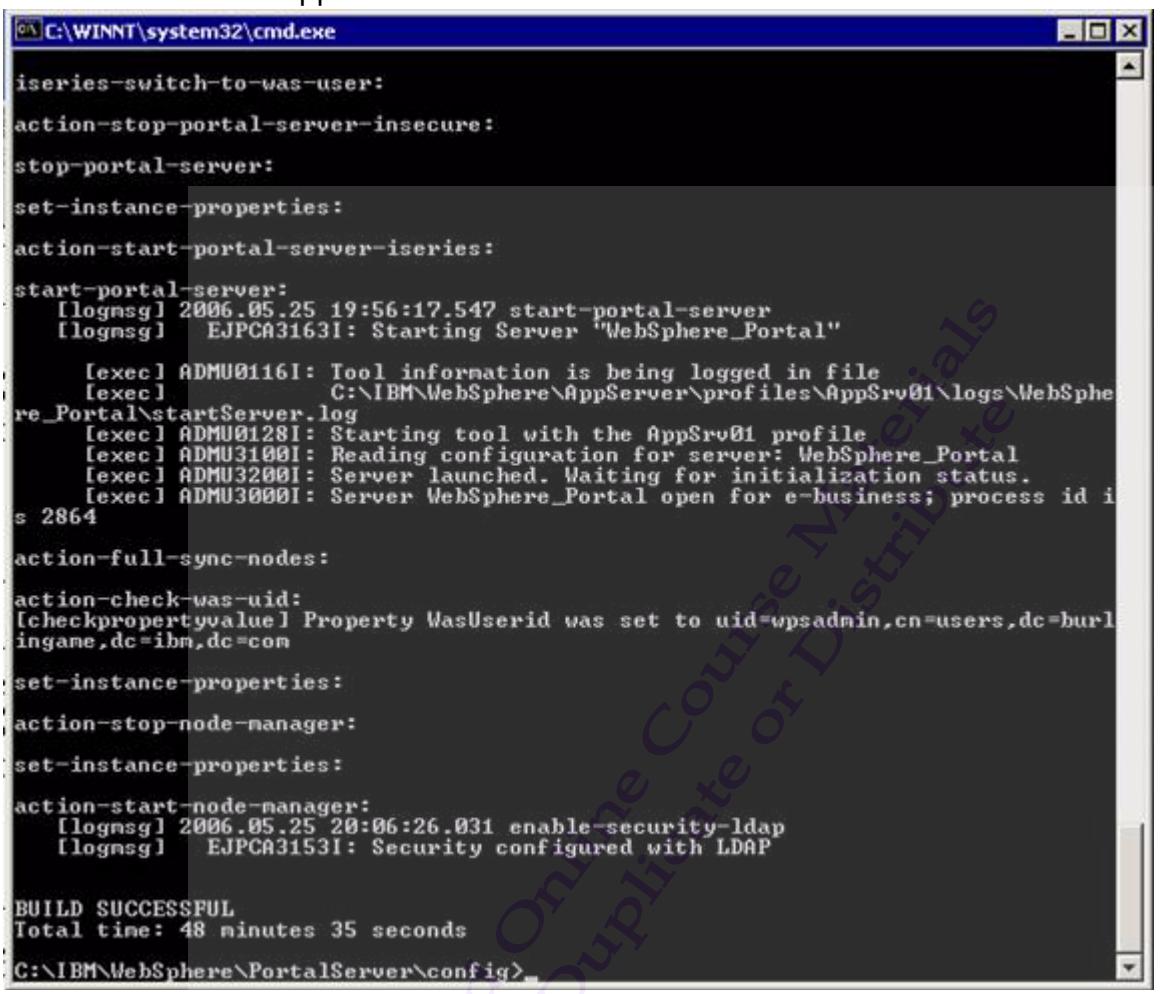


__ 10. At the command prompt, input `Wpsconfig.bat enable-security-ldap` and press **Enter**.

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__ 11. Wait for the appearance of `BUILD SUCCESSFUL`. If `BUILD FAILED` appears, check the setting in the `wpsconfig.properties` file. Rerun this process until `BUILD SUCCESSFUL` appears.



Part 10: Testing portal status

__ 1. Browse to `http://wtteapps03.usri.ibm.com:9081/wps/portal`

__ 2. Verify that using an LDAP user like `wpsbind/wpsbind, wpsadmin/wpsadmin` to log in is successful.

END OF EXERCISE

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Appendix J. Installing WebSphere Publishing Server

Part 1: Installing Publishing Server

__ 1. Navigate to `C:\DownloadDirector`

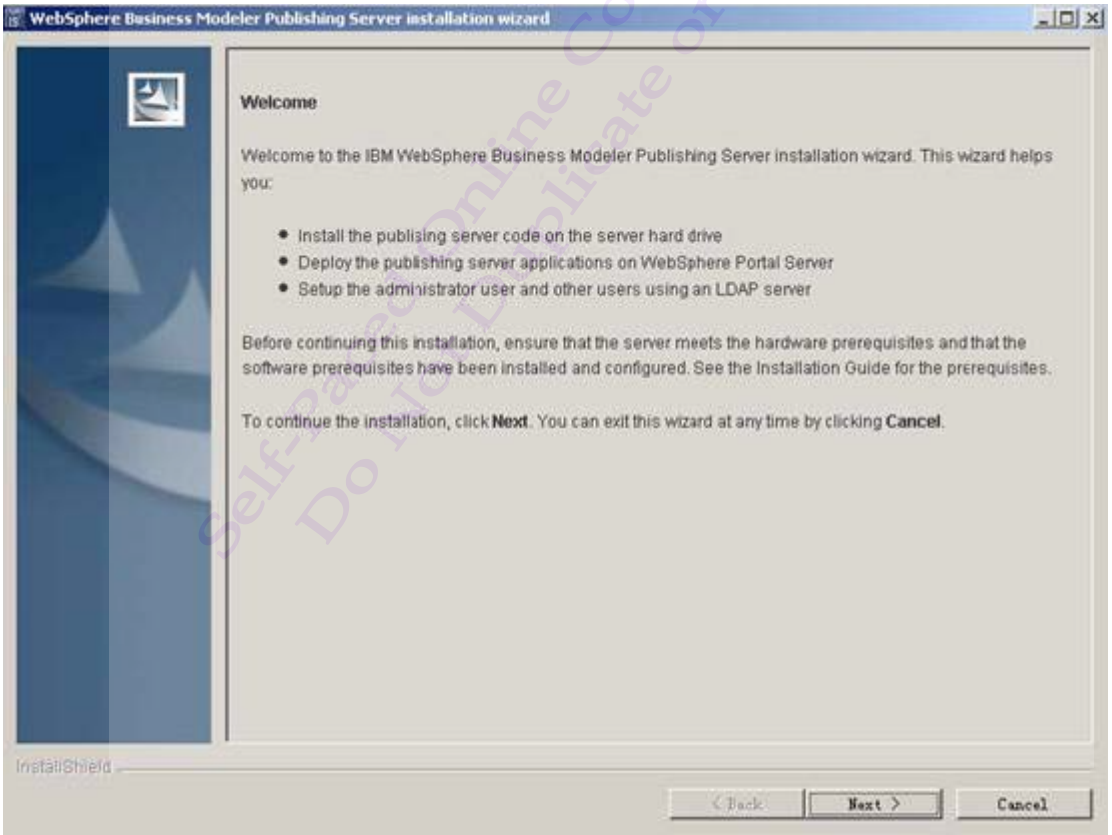
__ 2. Locate and extract **C900IML.zip** to `C:\Unzip\PublishingServer`

__ 3. Navigate to `C:\Unzip\Publishing Server` and double-click **setupwin32.exe**.

__ 4. Select **English** and click **OK**.



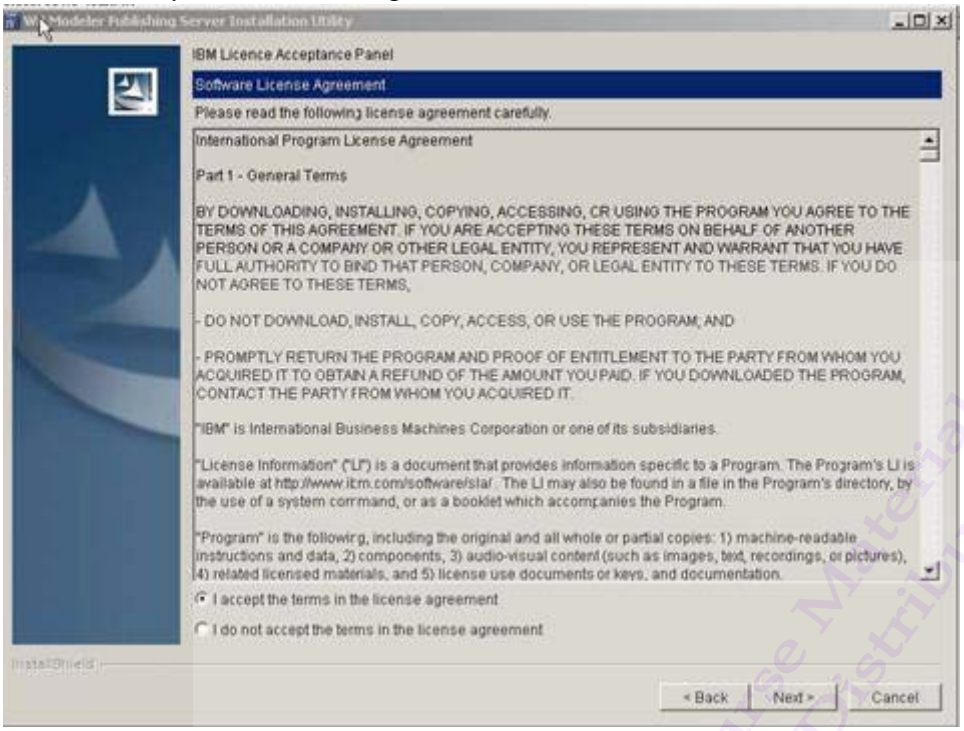
__ 5. In the Welcome window, click **Next**.


WebSphere Business Modeler Publishing Server installation wizard
Welcome
Welcome to the IBM WebSphere Business Modeler Publishing Server installation wizard. This wizard helps you:
Install the publising server code on the server hard drive
Deploy the publishing server applications on WebSphere Portal Server
Setup the administrator user and other users using an LDAP server
Before continuing this installation, ensure that the server meets the hardware prerequisites and that the software prerequisites have been installed and configured. See the Installation Guide for the prerequisites.
To continue the installation, click Next. You can exit this wizard at any time by clicking Cancel.
InstallShield
< Back
Next >
Cancel

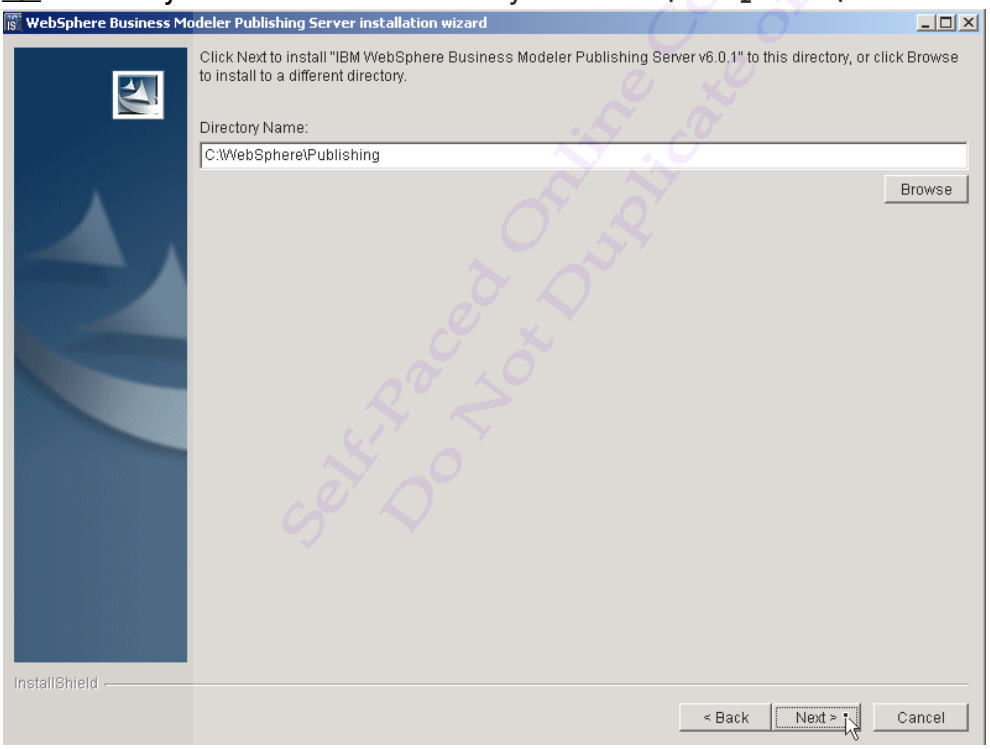
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I accept the terms in the license agreement
I do not accept the terms in the license agreement
InstallShield
< Back
Next >
Cancel

__ 7. Verify the installation directory to be `C:\WebSphere\Publishing` and click **Next**.

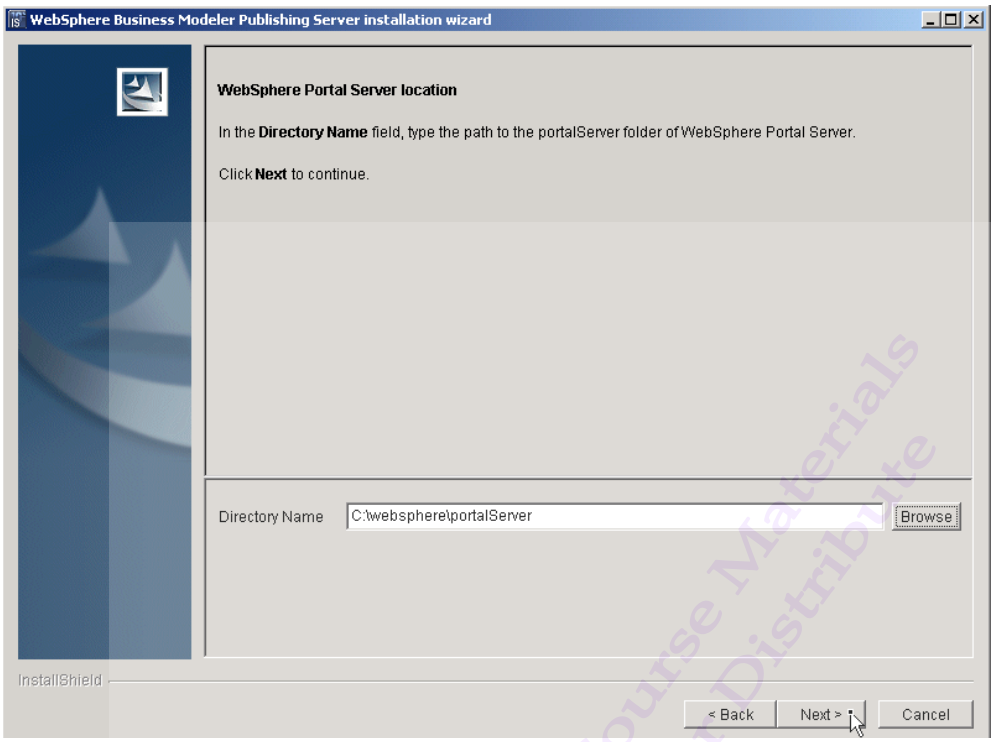

WebSphere Business Modeler Publishing Server installation wizard
Click Next to install "IBM WebSphere Business Modeler Publishing Server v6.0.1" to this directory, or click Browse to install to a different directory.
Directory Name:
C:\WebSphere\Publishing
Browse
InstallShield
< Back
Next >
Cancel

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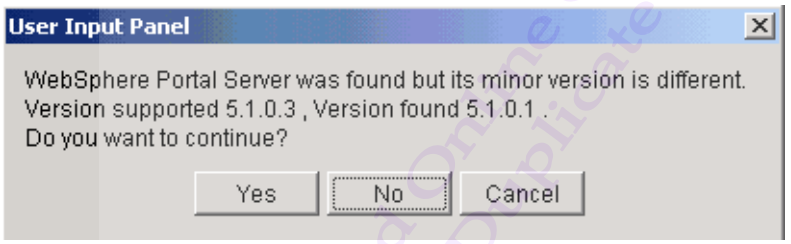
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__ 8. Verify the Portal installation directory as `C:\WebSphere\PortalServer` and click **Next**.


WebSphere Business Modeler Publishing Server installation wizard
WebSphere Portal Server location
In the Directory Name field, type the path to the portalServer folder of WebSphere Portal Server.
Click Next to continue.
Directory Name
C:\websphere\portalServer
Browse
InstallShield
< Back
Next >
Cancel

__ 9. Click **Yes**.


User Input Panel
WebSphere Portal Server was found but its minor version is different.
Version supported 5.1.0.3 , Version found 5.1.0.1 .
Do you want to continue?
Yes
No
Cancel

__ 10. Provide information for WebSphere Application Server

__ a. Verify the Application Server installation directory to be `C:/WebSphere/AppServer`

__ b. Input the profile name of the Application Server: `AppSrv01`

__ c. Input the WebSphere Application Server Administrator User Name: `uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com` and Password: **`wpsadmin`**.

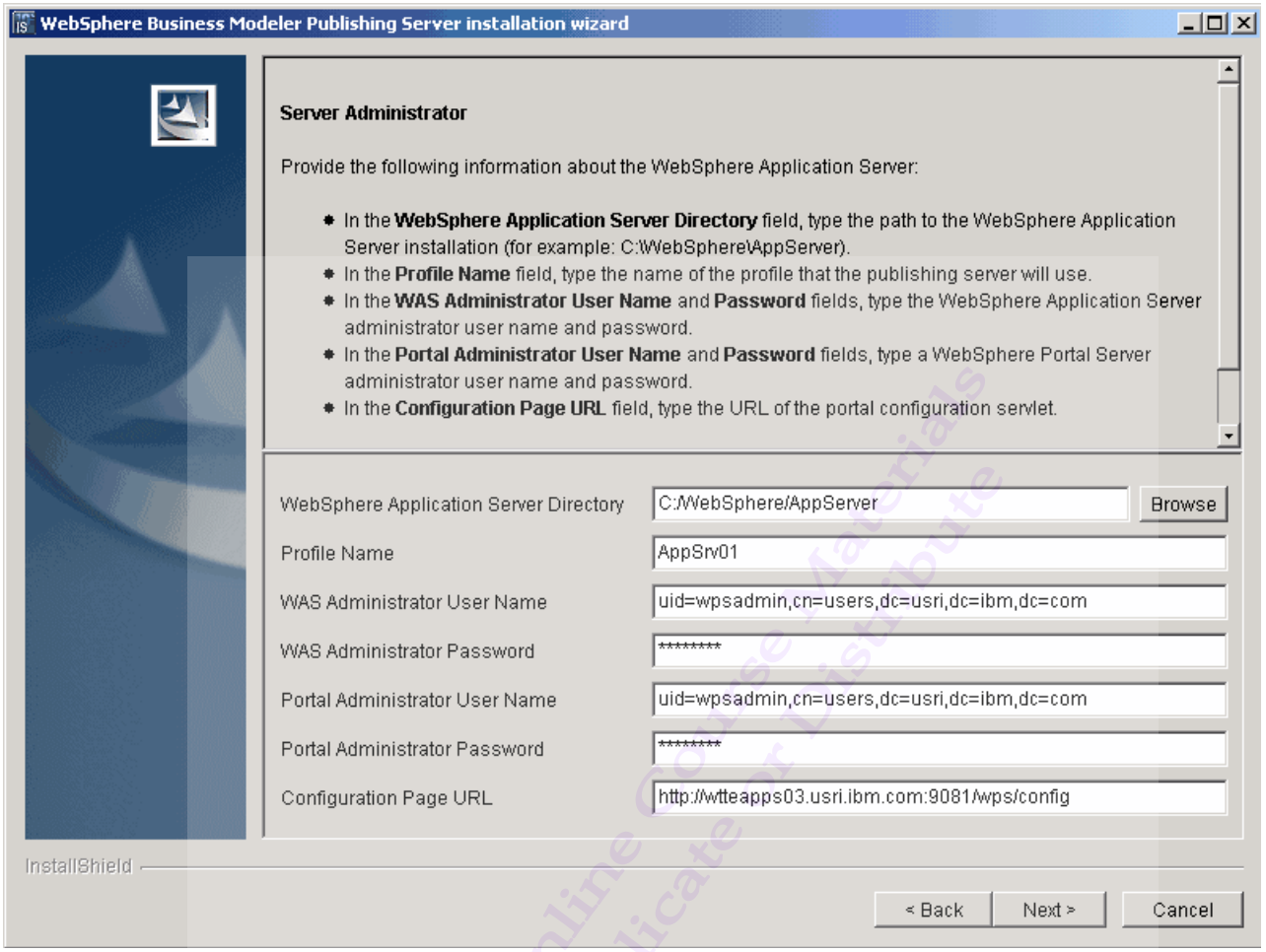
__ d. Input the Portal Administrator User Name: `uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com` and Password: **`wpsadmin`**.

__ e. Verify the Configuration Page URL.

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__ f. Click **Next**.


WebSphere Business Modeler Publishing Server installation wizard
Server Administrator
Provide the following information about the WebSphere Application Server:
In the WebSphere Application Server Directory field, type the path to the WebSphere Application Server installation (for example: C:\WebSphere\AppServer).
In the Profile Name field, type the name of the profile that the publishing server will use.
In the WAS Administrator User Name and Password fields, type the WebSphere Application Server administrator user name and password.
In the Portal Administrator User Name and Password fields, type a WebSphere Portal Server administrator user name and password.
In the Configuration Page URL field, type the URL of the portal configuration servlet.
WebSphere Application Server Directory
C:/WebSphere/AppServer
Browse
Profile Name
AppSrv01
WAS Administrator User Name
uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com
WAS Administrator Password
****
Portal Administrator User Name
uid=wpsadmin,cn=users,dc=usri,dc=ibm,dc=com
Portal Administrator Password
****
Configuration Page URL
http://wtteapps03.usri.ibm.com:9081/wps/config
InstallShield
< Back
Next >
Cancel

__ 11. Provide information for LDAP server.

__ a. Verify the LDAP URL to be `ldap://wtteapps03.usri.ibm.com:389`

__ b. Verify the Server Bind DN to be `uid=wpsbind,dc=usri,dc=ibm,dc=com`

__ c. Input Server Bind Password: `wpsbind`

__ d. Verify the Naming Attribute Holding User ID: `uid`

__ e. Verify the Naming Attribute Holding Group ID: `cn`

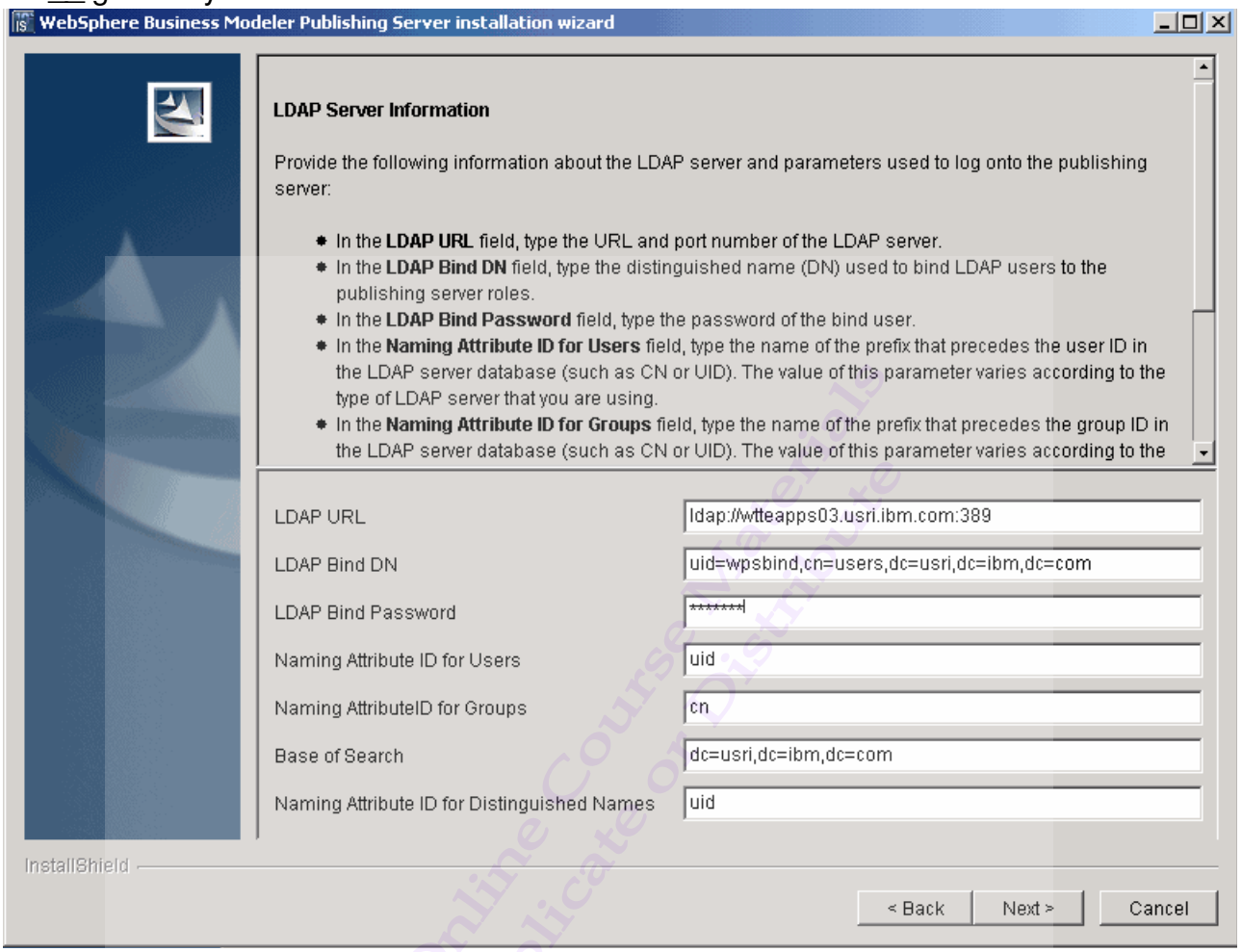
__ f. Verify the Base of Search: `dc=usri,dc=ibm,dc=com`

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__ g. Verify the DN Attribute ID: `uid`


WebSphere Business Modeler Publishing Server installation wizard
LDAP Server Information
Provide the following information about the LDAP server and parameters used to log onto the publishing server:
In the LDAP URL field, type the URL and port number of the LDAP server.
In the LDAP Bind DN field, type the distinguished name (DN) used to bind LDAP users to the publishing server roles.
In the LDAP Bind Password field, type the password of the bind user.
In the Naming Attribute ID for Users field, type the name of the prefix that precedes the user ID in the LDAP server database (such as CN or UID). The value of this parameter varies according to the type of LDAP server that you are using.
In the Naming Attribute ID for Groups field, type the name of the prefix that precedes the group ID in the LDAP server database (such as CN or UID). The value of this parameter varies according to the
LDAP URL
ldap://wtteapps03.usri.ibm.com:389
LDAP Bind DN
uid=wpsbind,cn=users,dc=usri,dc=ibm,dc=com
LDAP Bind Password
****
Naming Attribute ID for Users
uid
Naming AttributeID for Groups
cn
Base of Search
dc=usri,dc=ibm,dc=com
Naming Attribute ID for Distinguished Names
uid
InstallShield
< Back
Next >
Cancel

__ 12. Assign wpsadmin to the Publisher role.

__ a. In left panel, click **users** and expand it.

__ b. Click **wpsadmin** under users.

__ c. In right panel, click **Publishers**.

__ d. Click the **Add** button.

__ 13. Assign wpsadmins to the Publishers role.

__ a. In left panel, click **groups** and expand it.

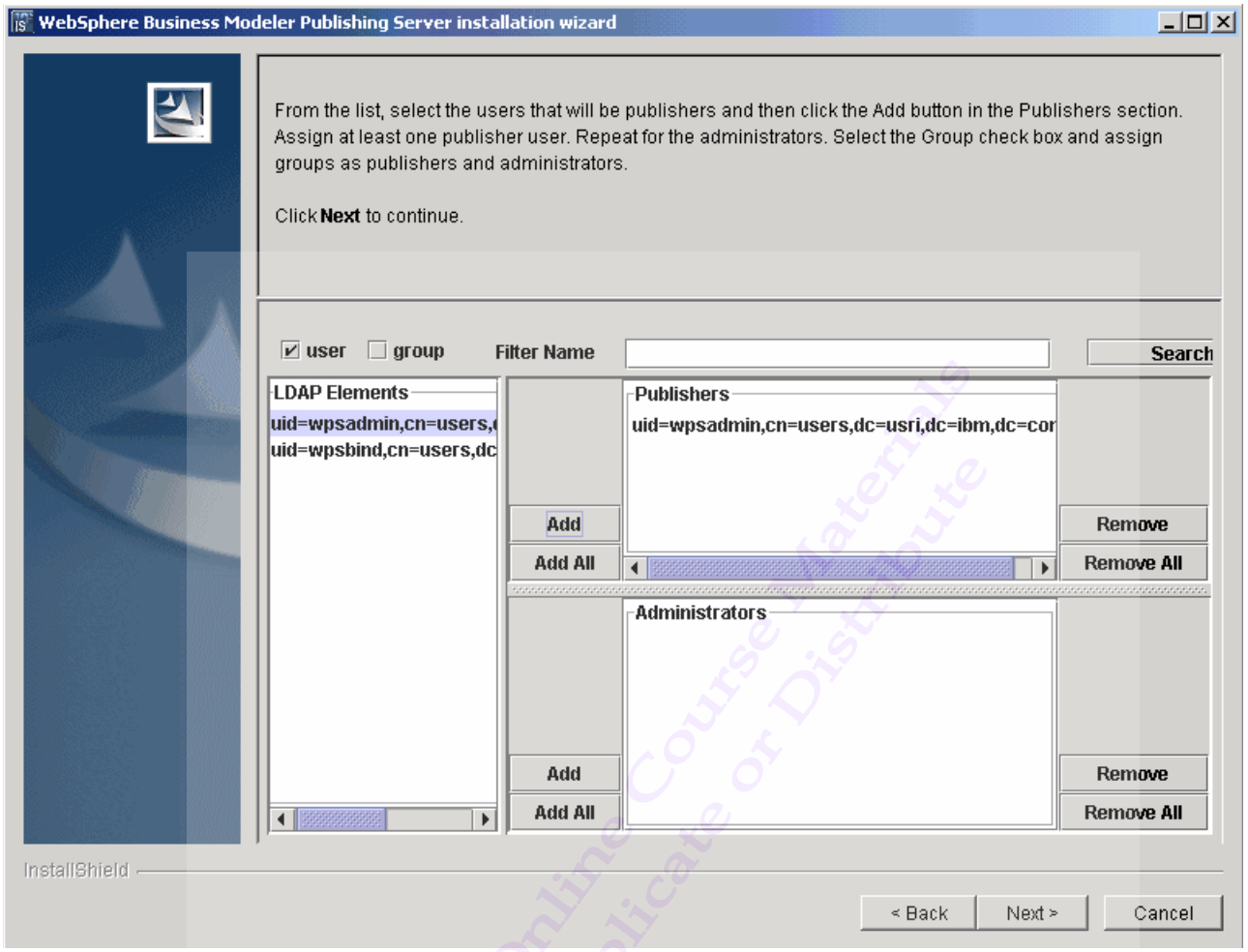
__ b. Click **wpsadmins** under groups.

__ c. In right panel, click **Publishers**.

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__ d. Click the **Add** button.



__ 14. Repeat steps 12 and 13 to assign `wpsadmin` and `wpsadmins` to the **Administrators** role.

__ 15. Click **Next** when the role assignments are done.

__ 16. Verify the information for Application Deployment:

__ a. Draft Application Server Instance: `server1`

__ b. Draft Application Server Instance Port: `9080`

__ c. Released Application Server Instance: `server1`

__ d. Released Application Server Instance Port: `9080`

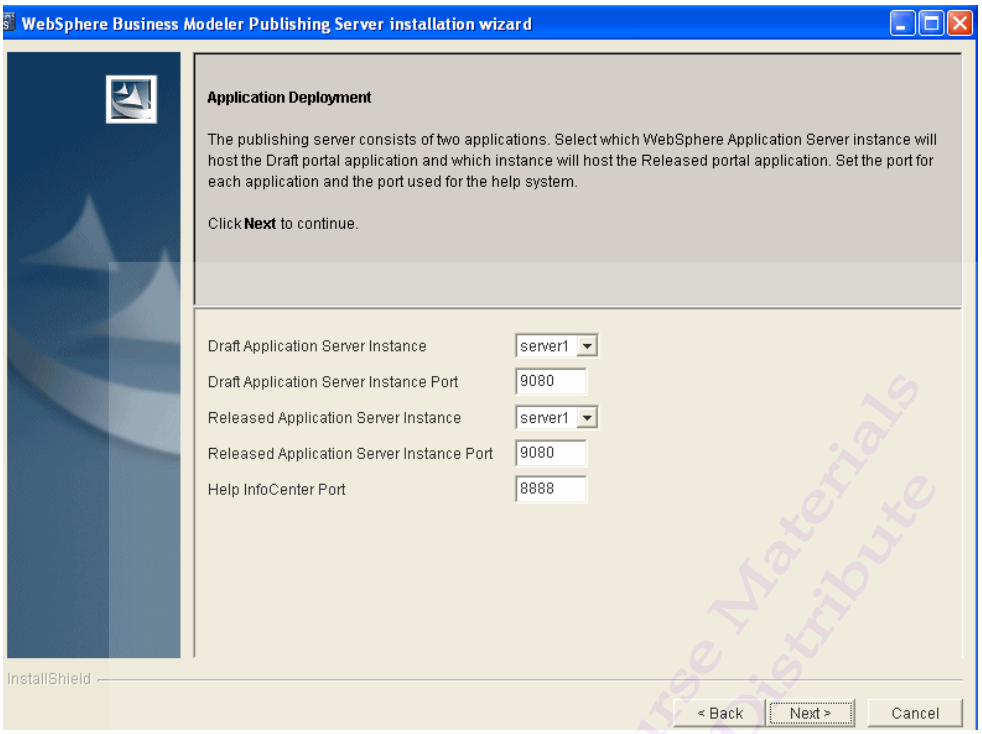
__ e. Help InfoCenter Port: `8888`

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__ f. Click **Next**.


WebSphere Business Modeler Publishing Server installation wizard
Application Deployment
The publishing server consists of two applications. Select which WebSphere Application Server instance will host the Draft portal application and which instance will host the Released portal application. Set the port for each application and the port used for the help system.
Click Next to continue.
Draft Application Server Instance
server1
Draft Application Server Instance Port
9080
Released Application Server Instance
server1
Released Application Server Instance Port
9080
Help InfoCenter Port
8888
InstallShield
< Back
Next >
Cancel

__ 17. Start Domino Server if it is not currently running.

__ a. Click **Start —> Programs —> Lotus Applications —> Lotus Domino Server**.

__ 18. Input the information for Lotus Domino.

__ a. Domino Server Name: `wtteapps03`

__ b. Domain: `ibm.com`

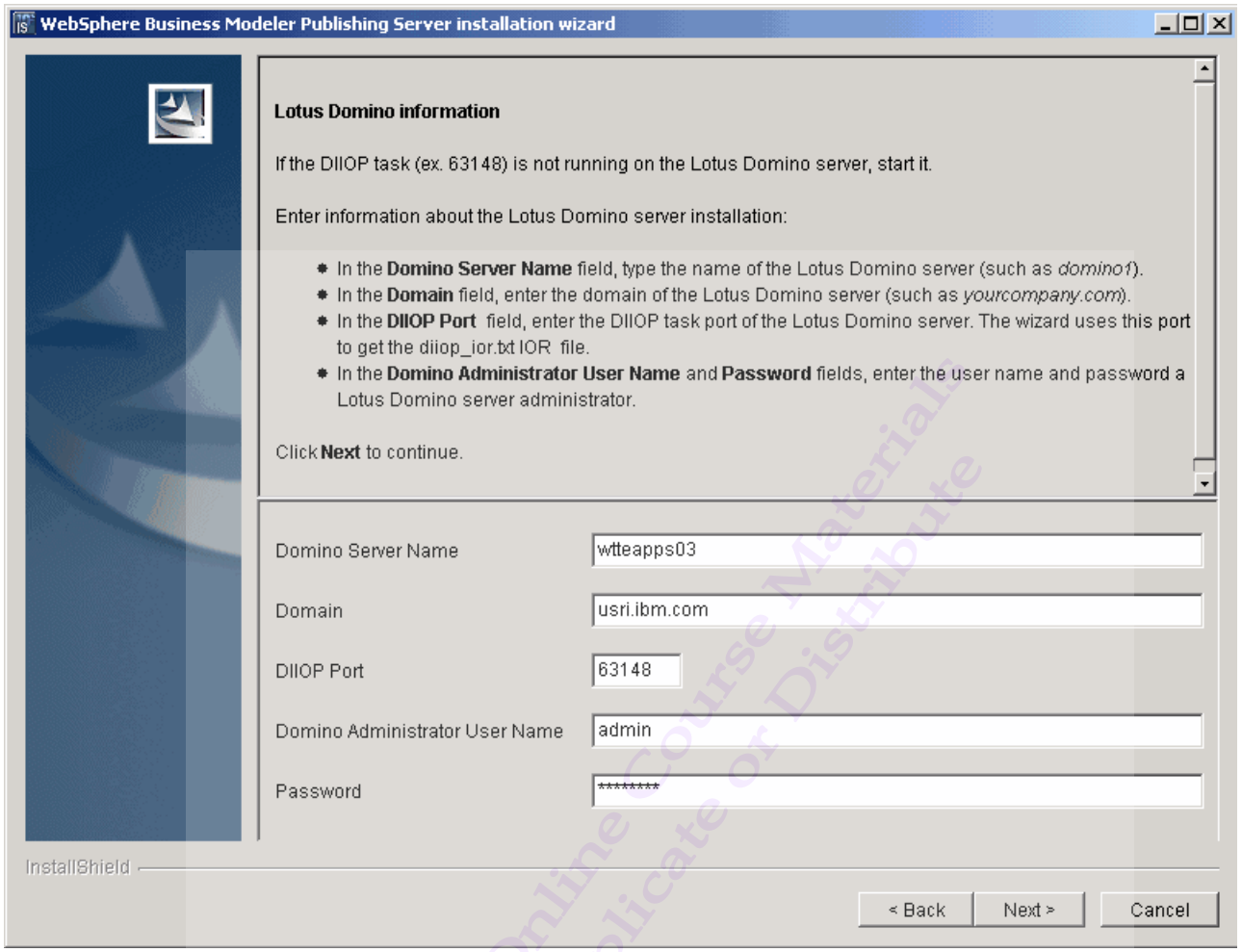
__ c. Domino Administrator User Name: `admin`

__ d. Domino Administrator Password: `password`

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__ e. Click **Next**.

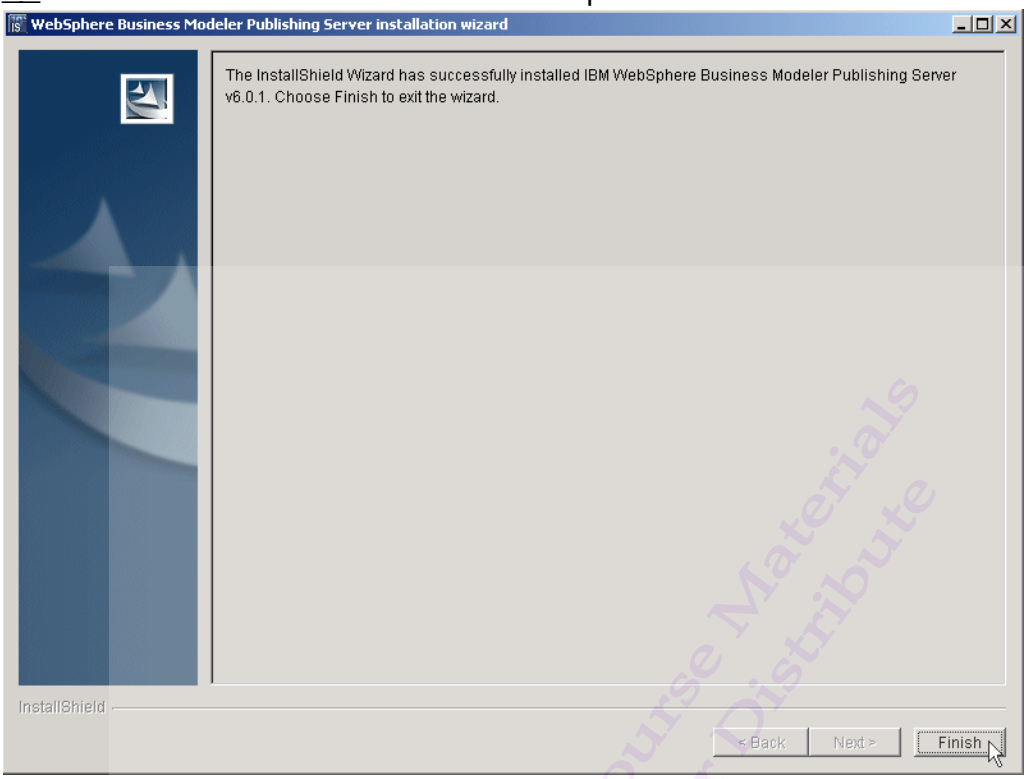

WebSphere Business Modeler Publishing Server installation wizard
Lotus Domino information
If the DIIOP task (ex. 63148) is not running on the Lotus Domino server, start it.
Enter information about the Lotus Domino server installation:
In the Domino Server Name field, type the name of the Lotus Domino server (such as domino1).
In the Domain field, enter the domain of the Lotus Domino server (such as yourcompany.com).
In the DIIOP Port field, enter the DIIOP task port of the Lotus Domino server. The wizard uses this port to get the diiop_ior.txt IOR file.
In the Domino Administrator User Name and Password fields, enter the user name and password a Lotus Domino server administrator.
Click Next to continue.
Domino Server Name
wtteapps03
Domain
usri.ibm.com
DIIOP Port
63148
Domino Administrator User Name
admin
Password
****
InstallShield
< Back
Next >
Cancel

__ 19. Publishing Server installation will start.

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__ 20. Click **Finish** when installation completes.

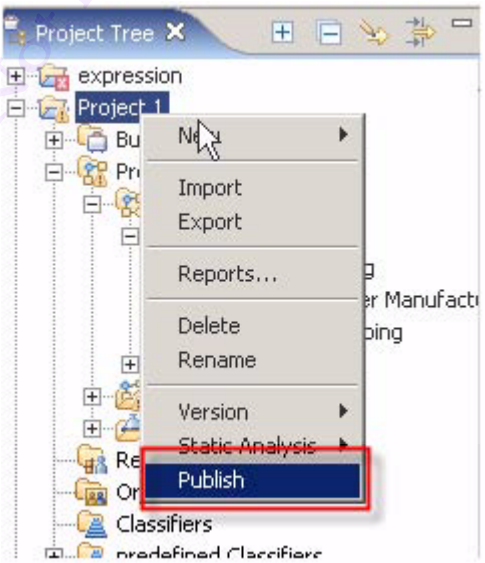

WebSphere Business Modeler Publishing Server installation wizard
The InstallShield Wizard has successfully installed IBM WebSphere Business Modeler Publishing Server v6.0.1. Choose Finish to exit the wizard.
InstallShield
< Back
Next >
Finish

__ 21. Browse to `http://wtteapps02.usri.ibm.com:9081/wps/myportal/`

`WelcomeToCollaboration`; use `wpsadmin` for User Name and Password to log in. Publishing Server is installed successfully if you are able to log in.

Part 2: Check point of the publishing

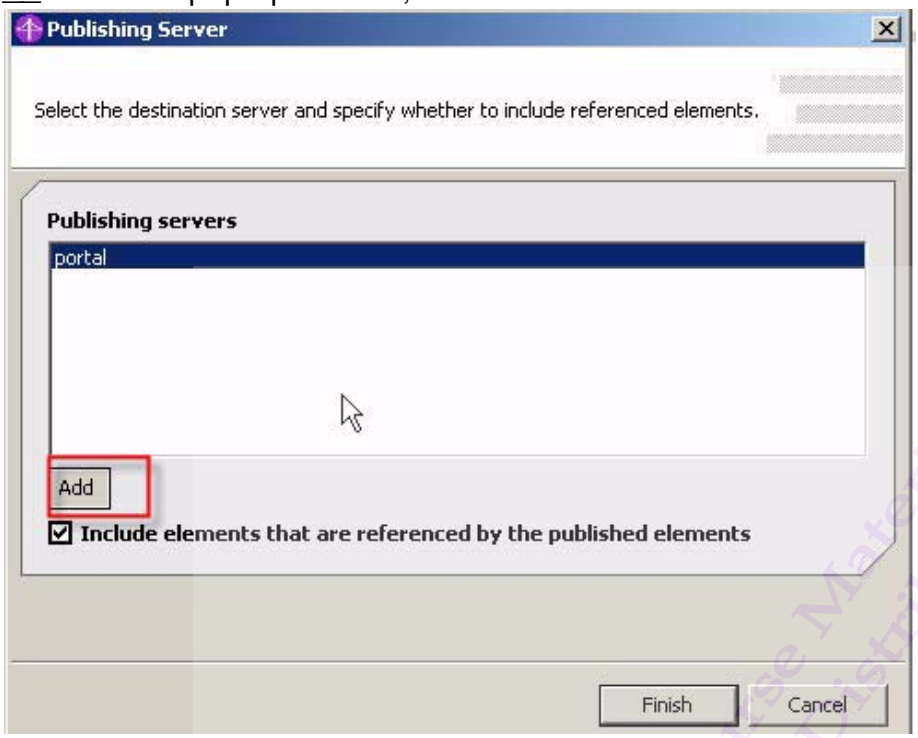
__ 1. Open **Modeler**, right-click an existing project, and select **Publish**.



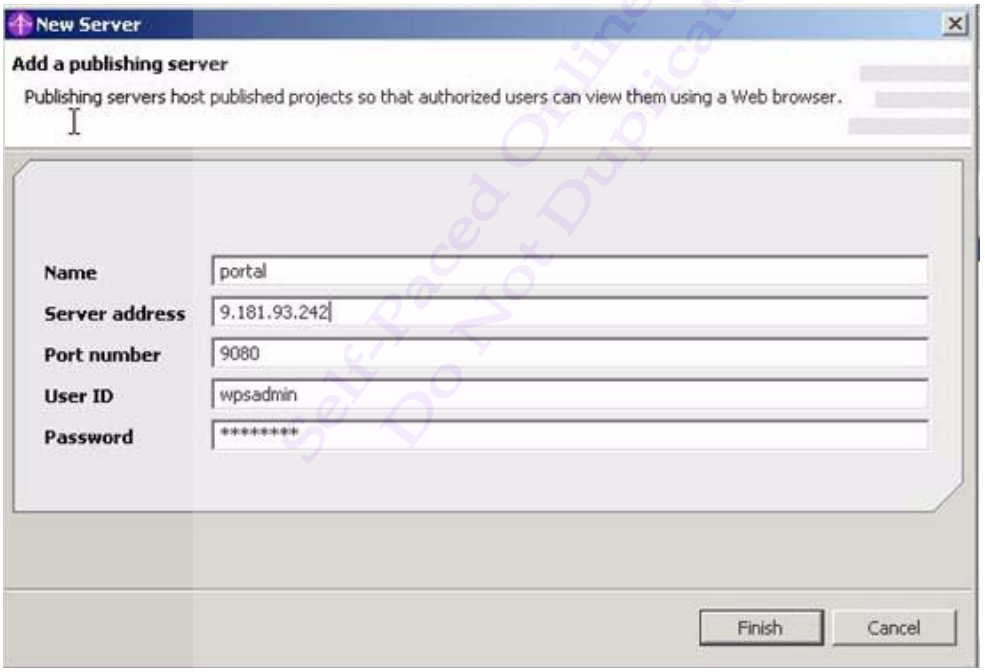
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__ 2. In the pop-up window, click **Add**.



__ 3. Enter the following information as required per your system. Note that the server address and password will vary, depending on how you originally defined them on installation.



After configuration you can choose the server and publish. Make sure you see the successful window.

END OF EXERCISE

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Appendix K. Installing WebSphere Business Modeler as a set of Eclipse plug-ins

What this exercise is about

WebSphere Business Modeler can be installed as plug-ins for WebSphere Integration Developer or any of the supported Rational products using the Eclipse update manager.

The WebSphere Business Modeler plug-ins are designed for developers who want to implement a solution using process models that have been created with WebSphere Business Modeler. For all other purposes, install the stand-alone product.

What you should be able to do

At the end of the lab, you should be able to:

- Install WebSphere Business Modeler as a plug-in

Requirements

WebSphere Integration Developer or one of the supported Rational products installed on your system.

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Instructions

The following steps refer explicitly to WebSphere Integration Developer but apply equally to any of the supported Rational products.

__ 1. Open **WebSphere Integration Developer**.

__ 2. Click **Help** —> **Software Updates** —> **Find and Install**. The Install wizard opens.

__ 3. Select **Search for new features to install** and click **Next**.

__ 4. On the Update sites to visit page, click **New Local Site**. The Browse for folder window opens.

__ 5. In the Browse for folder window, navigate to the **WebSphere Business Modeler** update site using one of the following methods:

__ a. If you are installing the plug-ins from the product CD, select `Compact Disk\UpdateManager\WBI-Modeler-advanced`

__ b. If you are installing the product from a downloaded WBIModeler folder, select the path to folder`\WBIModeler\updateManager\WBI-Modeler-advanced`

Once you have selected the site, click **OK**. You return to the wizard, and the site that you selected is included in the **Sites to include in search** list.

__ 6. Select the site that you have just added and click **Next**.

__ 7. On the **Search Results** page, click **Select All** to select both the product and documentation features.

__ 8. Click **Next**.

__ 9. On the **Feature License** page, read the license agreements for each feature you are installing. When are you are finished, accept the agreements by clicking **I accept the terms in the license agreements**, and then clicking **Next**.

__ 10. On the Install Location page, select the **\ID\sdpisv\eclipse** folder in the base directory in which you installed WebSphere Integration Developer.

Note: Do not create a new folder in which to place WebSphere Business Modeler plug-ins. Creating a new folder causes configuration issues that stop WebSphere Business Modeler from functioning properly.

__ 11. Click **Finish**.

__ 12. During the installation, you must confirm that you want to install unsigned features by clicking **Install**.

__ 13. When you are asked if you want to restart the workbench, click Yes.

__ 14. When you are asked if you want to restart the workbench in order for the changes to take effect, click **Yes**.

The product is now installed.

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Appendix L. Installing IBM Rational ClearCase LT and project versioning using ClearCase

What this exercise is about

This exercise consists of two sections: the installation of IBM Rational ClearCase, and project versioning using IBM Rational ClearCase with Modeler.

What you should be able to do

At the end of the first section, you should be able to:

- Obtain a license key
- Install the license key server
- Install ClearCase LT Server and client
- Create VOB (versioned object base)
- Create a view

At the end of the second section, you should be able to:

- Use version control on projects
- Check out a project
- Synchronize project data
- Commit and update local data to the repository
- View and compare versions

Requirements

Download the IBM Rational software files for VB184 from the eLearning site.

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Section 1: Installing IBM Rational ClearCase LT Server

In this section, you will install IBM Rational ClearCase LT Server on your computer. You will be provided a temporary 30-day license key for this product.

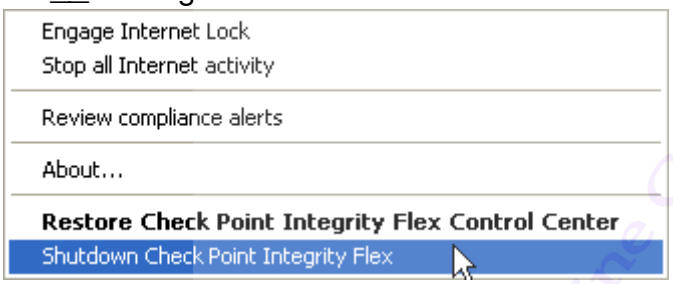
Part 1: Preparing the setup environment

__ 1. If you have a firewall installed, you need to shut it down. The shutdown procedure for each firewall is unique. The following shows how to shut down the **Check Point Integrity Flex** firewall.

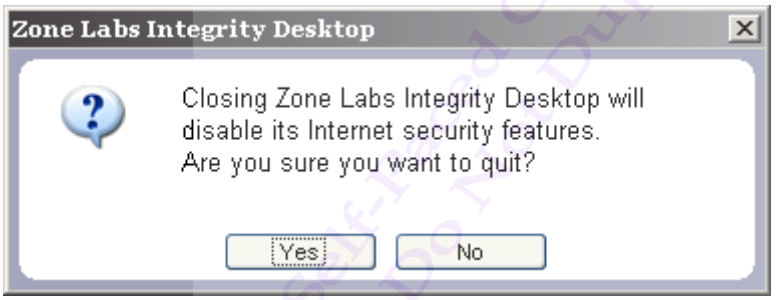
__ a. Locate the icon in the lower right corner of your computer screen.



__ b. Right-click the icon and select **Shutdown Check Point Integrity Flex**.



__ c. Click **Yes**.

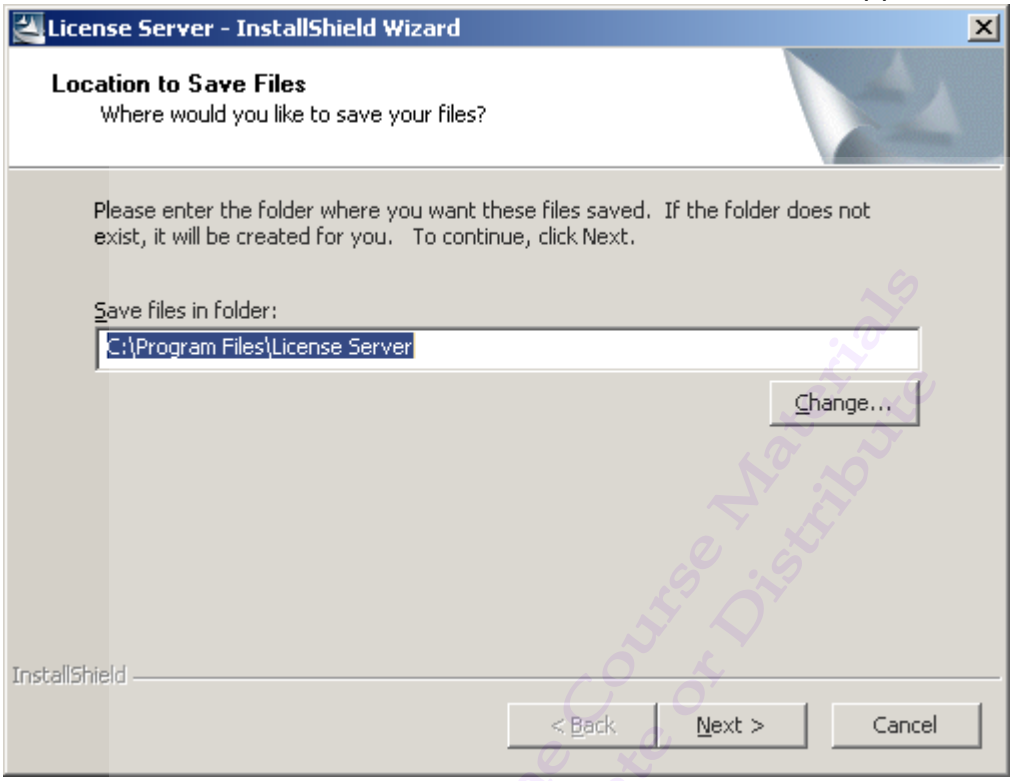

Zone Labs Integrity Desktop
Closing Zone Labs Integrity Desktop will disable its Internet security features.
Are you sure you want to quit?
Yes
No

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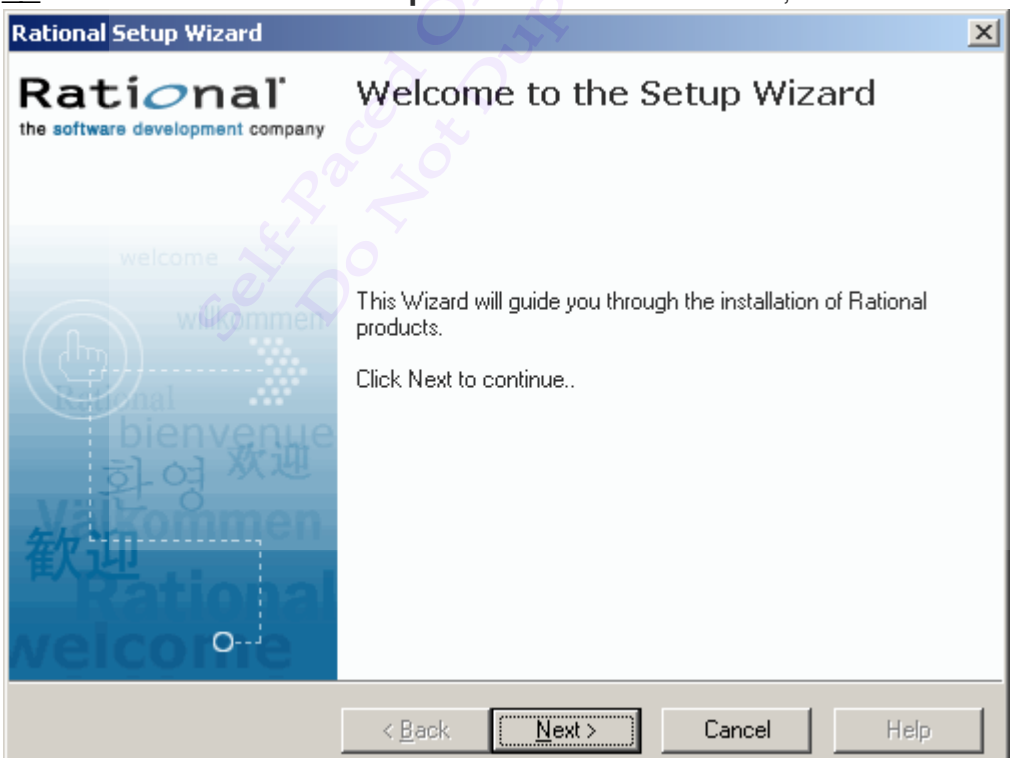
Part 2: Installing the license server

__ 1. Double-click `C82URML.exe` in the `C:/VB184/Software` folder. The **License Server - InstallShield Wizard** window appears.


License Server - InstallShield Wizard
Location to Save Files
Where would you like to save your files?
Please enter the folder where you want these files saved. If the folder does not exist, it will be created for you. To continue, click Next.
Save files in folder:
C:\Program Files\License Server
Change...
InstallShield
< Back
Next >
Cancel

__ 2. Accept the default location and click **Next**.

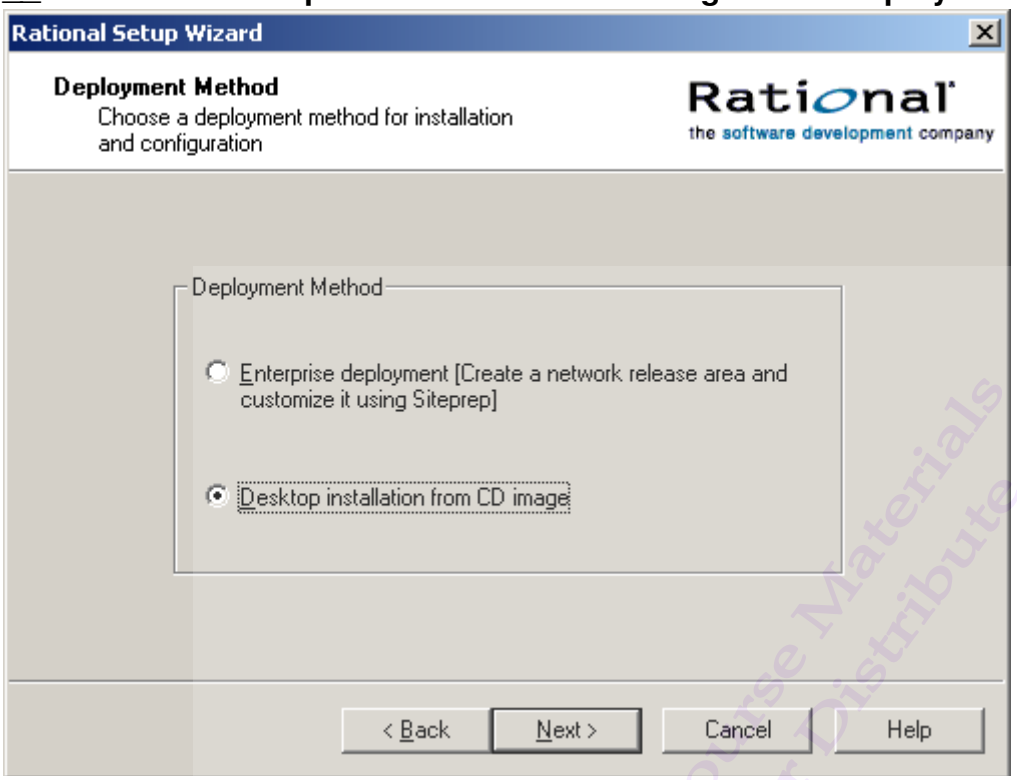
__ 3. On the **Rational Setup Wizard** welcome screen, click **Next**.



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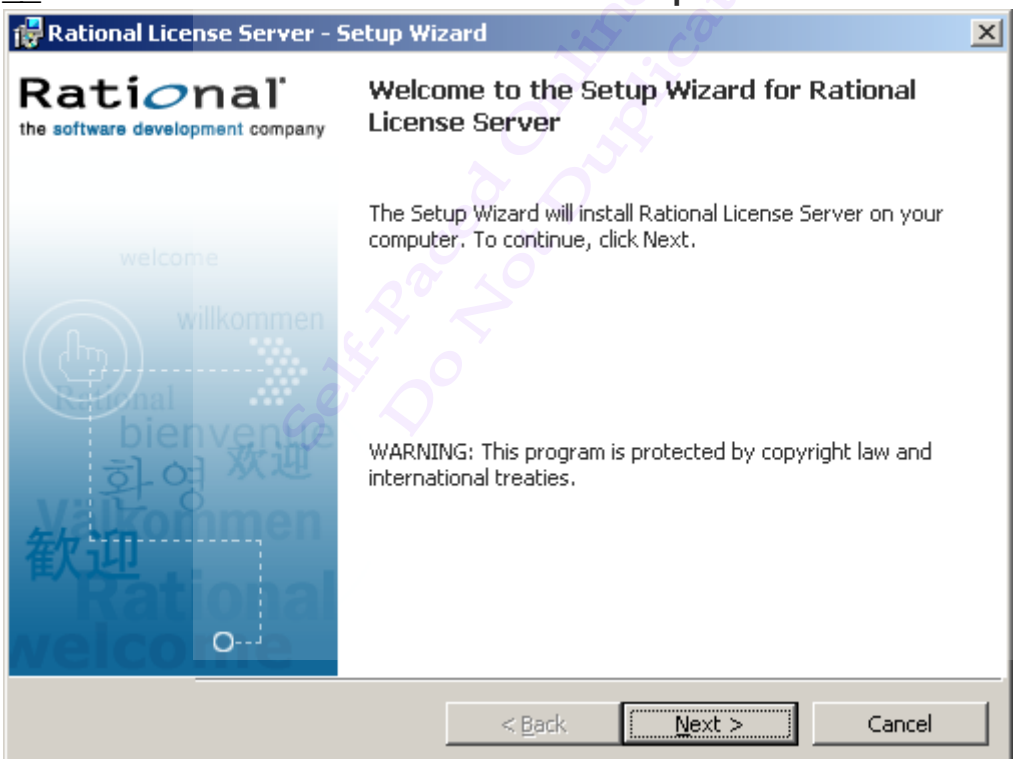
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__ 4. Select **Desktop installation from CD image** as the **Deployment Method**.



__ 5. Click **Next**.

__ 6. On the **Rational License Server – Setup Wizard** welcome screen, click **Next**.

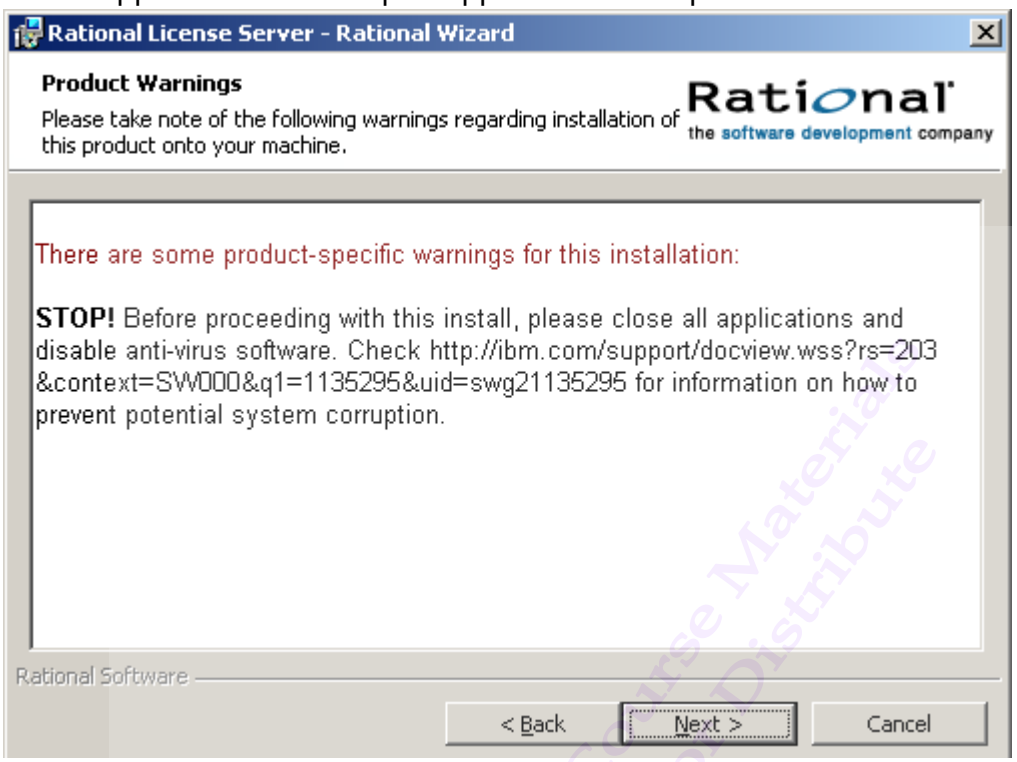

Rational License Server - Setup Wizard
Rational
the software development company
Welcome to the Setup Wizard for Rational License Server
The Setup Wizard will install Rational License Server on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

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__ 7. The **Rational License Server - Rational Wizard Product Warnings** window appears. Close all open applications except the installer.


Rational License Server - Rational Wizard
Product Warnings
Please take note of the following warnings regarding installation of this product onto your machine.
Rational
the software development company
There are some product-specific warnings for this installation:
STOP! Before proceeding with this install, please close all applications and disable anti-virus software. Check http://ibm.com/support/docview.wss?rs=203&context=SW000&q1=1135295&uid=swg21135295 for information on how to prevent potential system corruption.
Rational Software
< Back
Next >
Cancel

__ 8. Click **Next**.

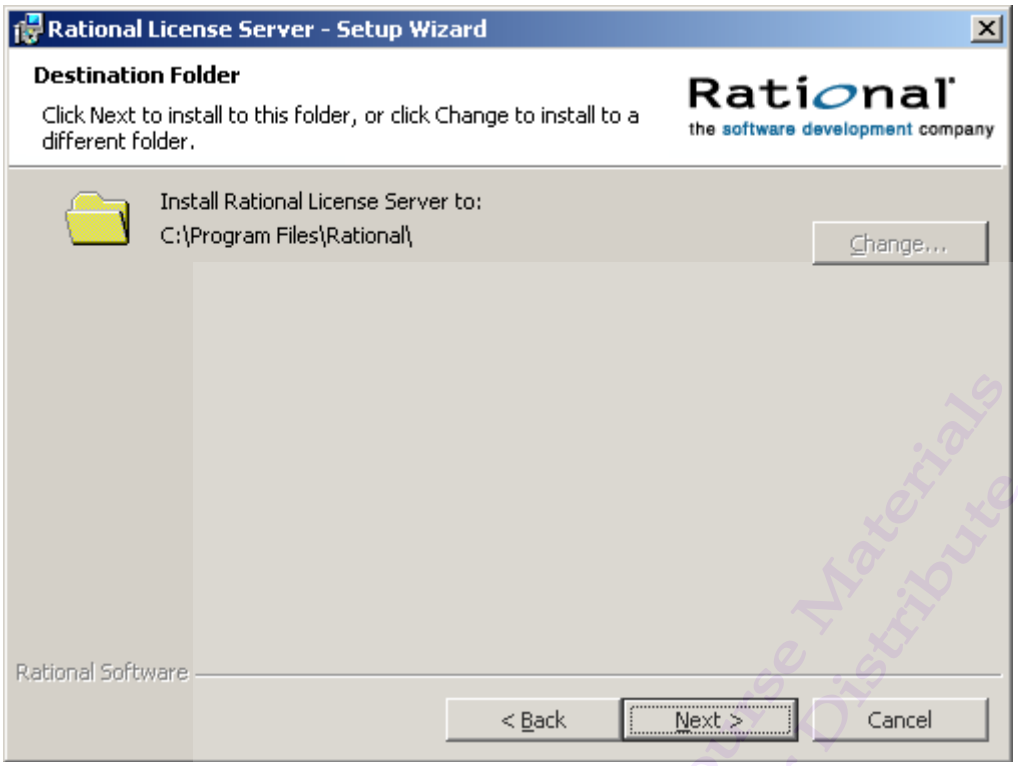
__ 9. Select **I accept the terms in the license agreement** and click **Next**.


Rational License Server - Setup Wizard
License Agreement
Please read the Rational and third party licenses prior to acceptance.
Rational
the software development company
International Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT
View
Click View to display the third party terms you are accepting.
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Rational Software
< Back
Next >
Cancel

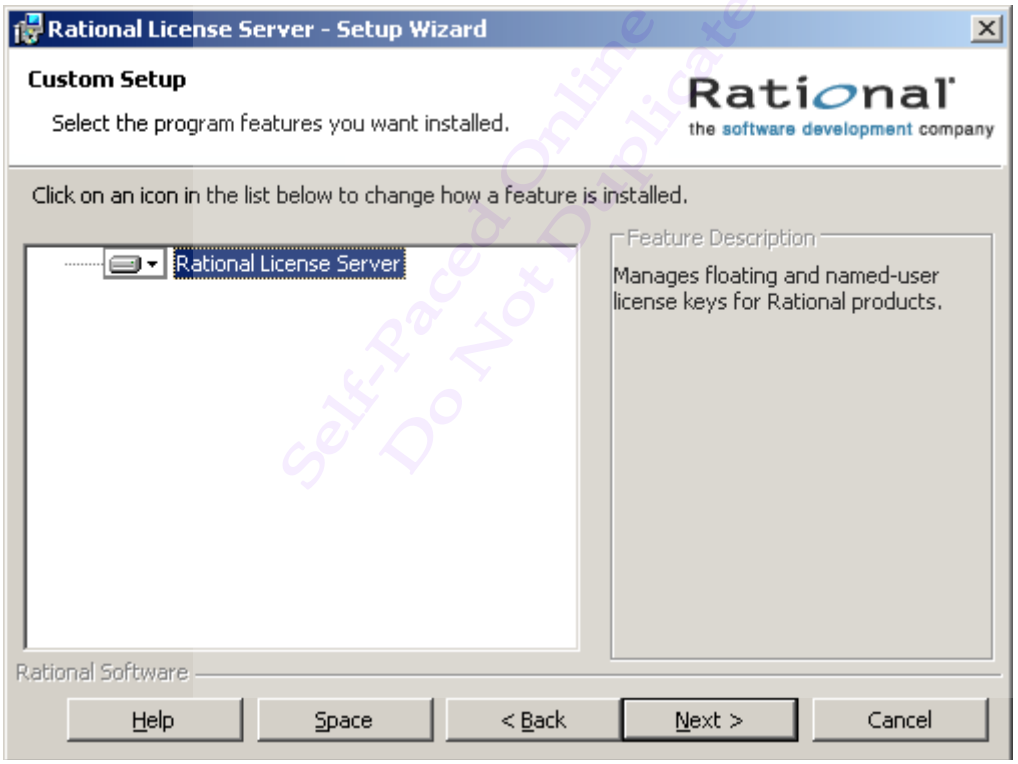
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___ 10. Click **Next**.


Rational License Server - Setup Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Rational
the software development company
Install Rational License Server to:
C:\Program Files\Rational\
Change...
Rational Software
< Back
Next >
Cancel

___ 11. Click **Next**.

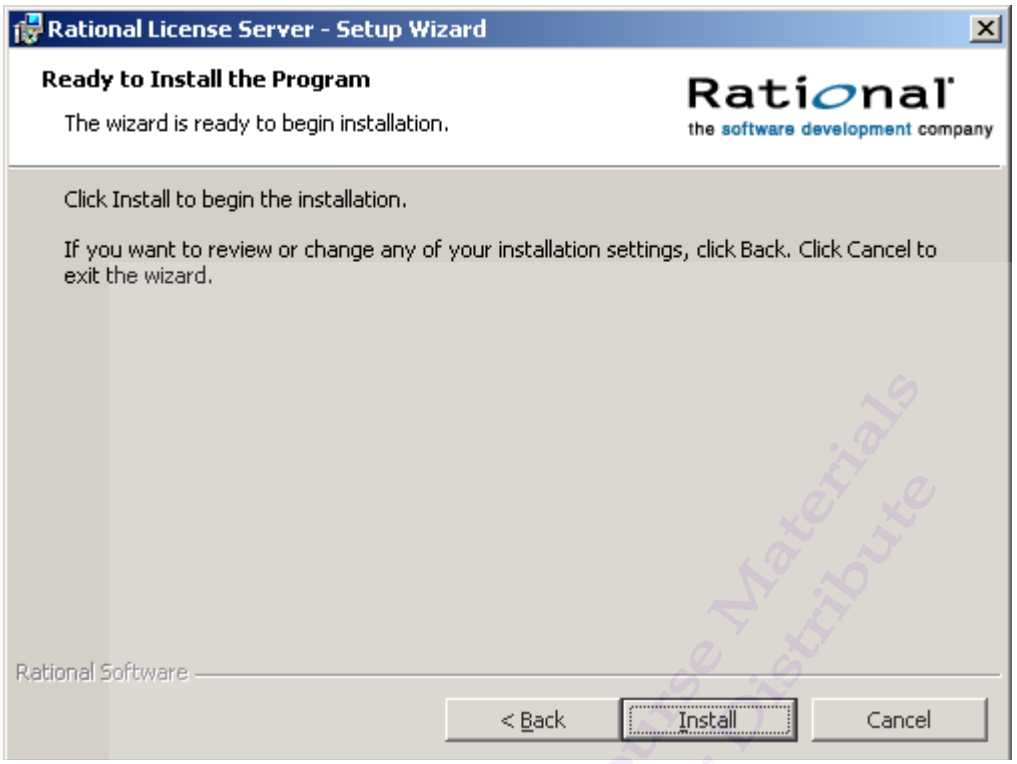

Rational License Server - Setup Wizard
Custom Setup
Select the program features you want installed.
Rational
the software development company
Click on an icon in the list below to change how a feature is installed.
Rational License Server
Feature Description
Manages floating and named-user license keys for Rational products.
Rational Software
Help
Space
< Back
Next >
Cancel

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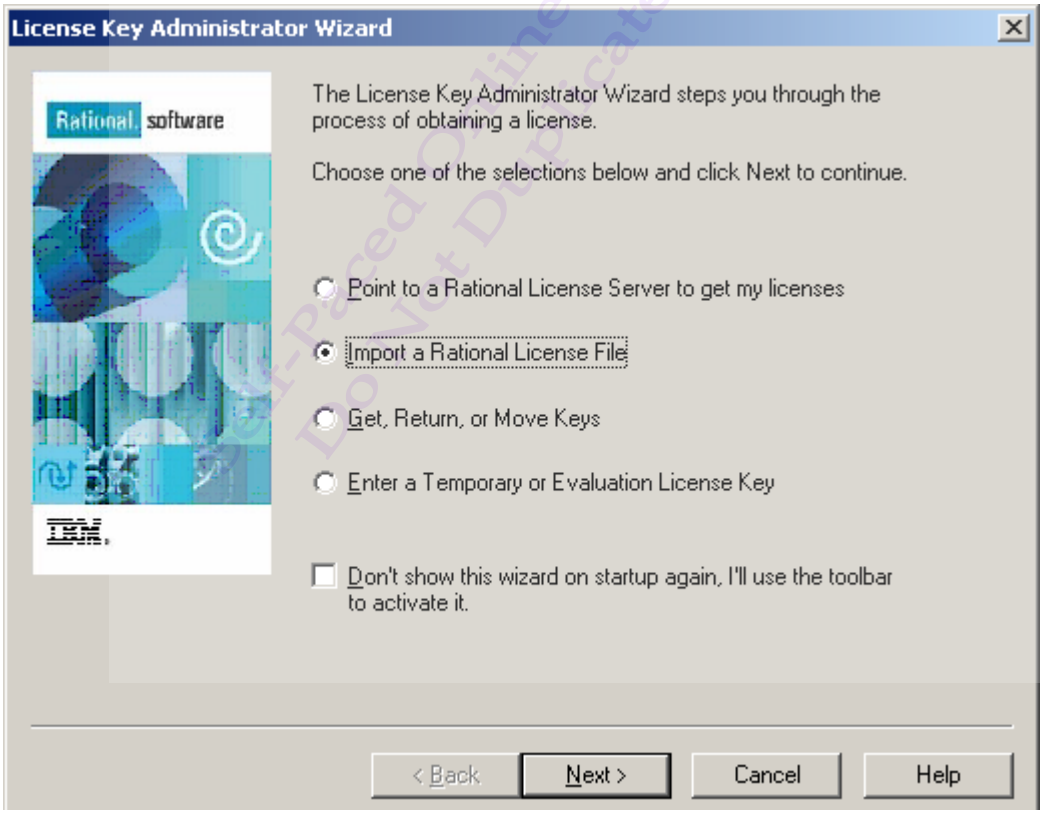
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__ 12. Click **Install**.


Rational License Server - Setup Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Rational
the software development company
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Rational Software
< Back
Install
Cancel

__ 13. Select **Import a Rational License File** from the **License Key Administrator Wizard**.

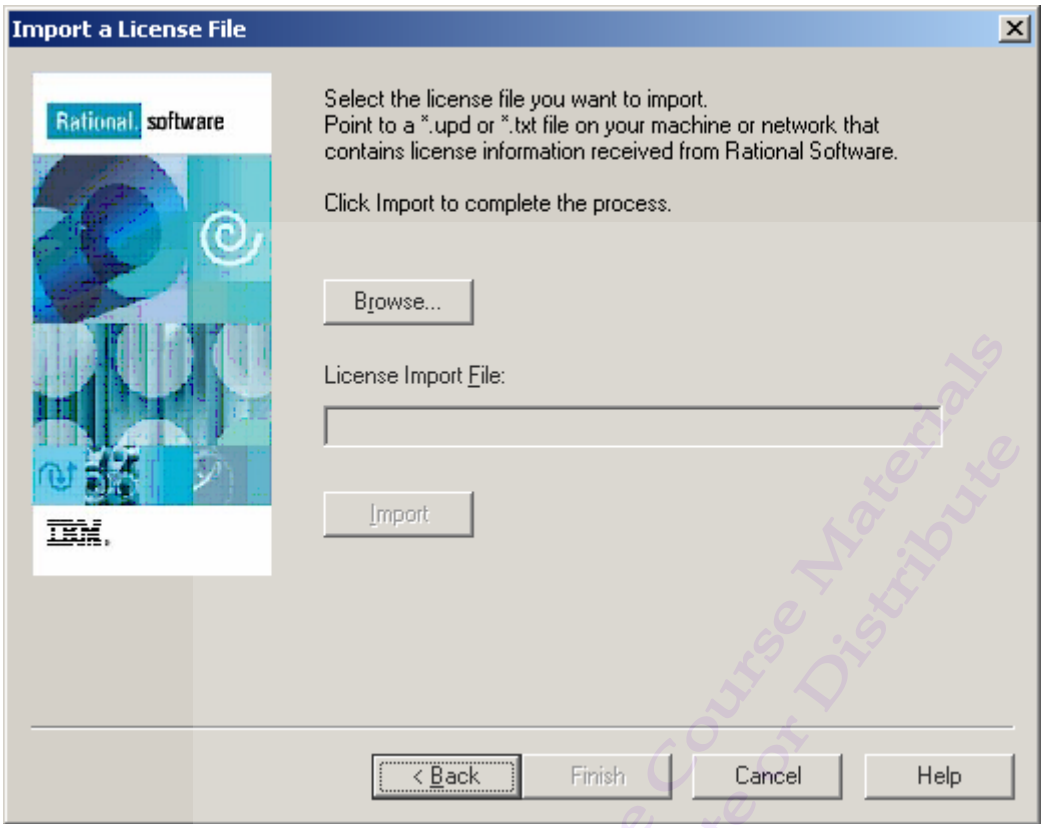

License Key Administrator Wizard
Rational. software
The License Key Administrator Wizard steps you through the process of obtaining a license.
Choose one of the selections below and click Next to continue.
Point to a Rational License Server to get my licenses
Import a Rational License File
Get, Return, or Move Keys
Enter a Temporary or Evaluation License Key
Don't show this wizard on startup again, I'll use the toolbar to activate it.
< Back
Next >
Cancel
Help

__ 14. Click **Next**.

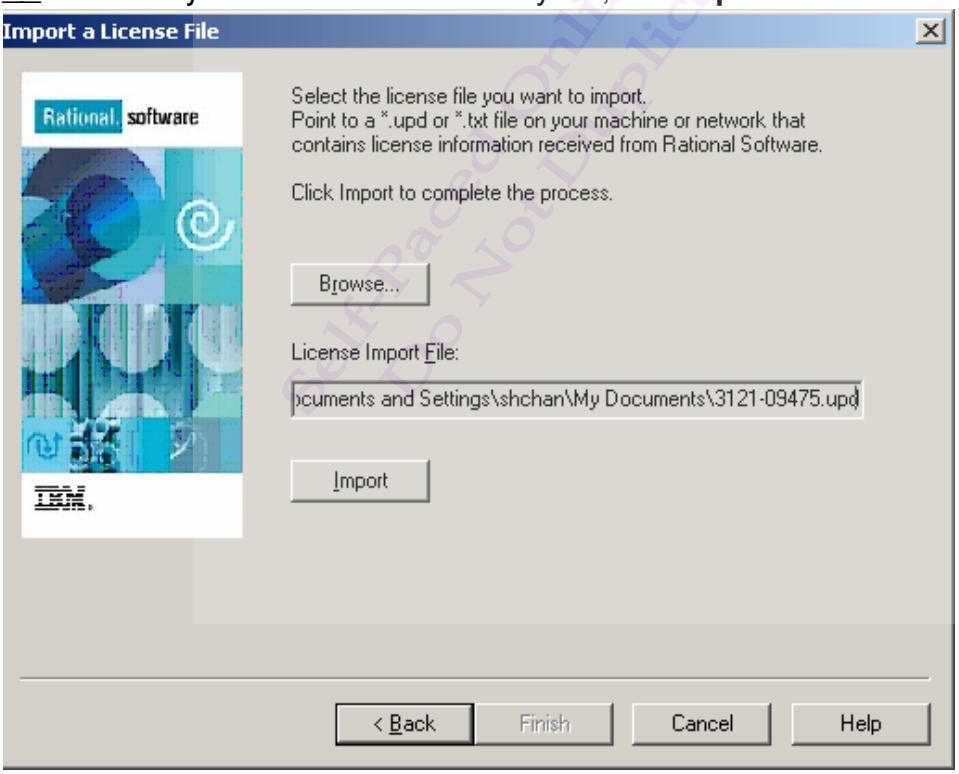
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__ 15. Click the **Browse** button to locate the license key file `3121-09475.upd` in folder `C:/VB184/Software`.


Import a License File
Rational. software
Select the license file you want to import.
Point to a *.upd or *.txt file on your machine or network that contains license information received from Rational Software.
Click Import to complete the process.
Browse...
License Import File:
Import
< Back
Finish
Cancel
Help

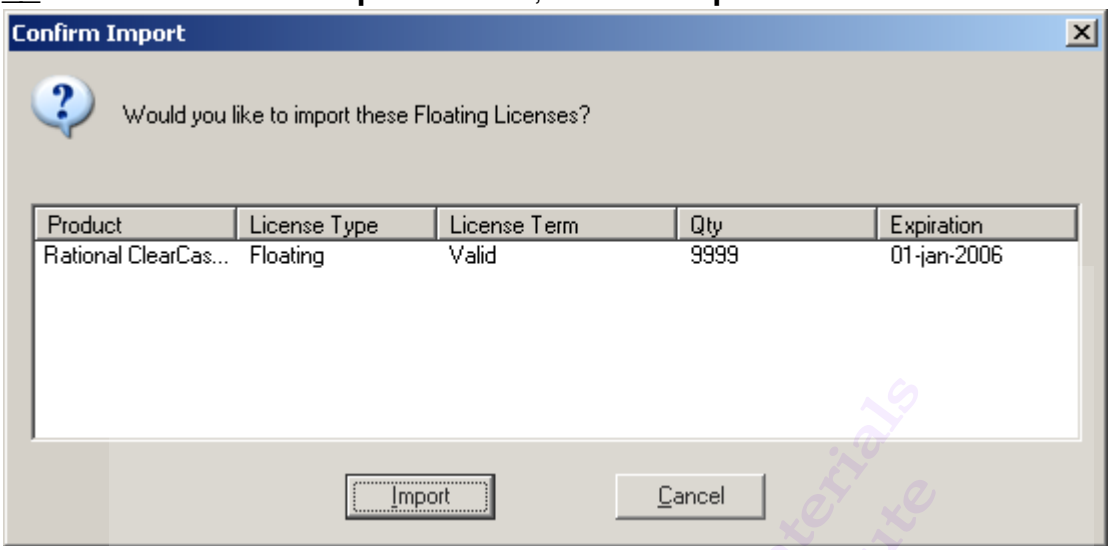
__ 16. Once you locate the license key file, click **Open**. The license key file is displayed.


Import a License File
Rational. software
Select the license file you want to import.
Point to a *.upd or *.txt file on your machine or network that contains license information received from Rational Software.
Click Import to complete the process.
Browse...
License Import File:
ocuments and Settings\shchan\My Documents\3121-09475.upd
Import
< Back
Finish
Cancel
Help

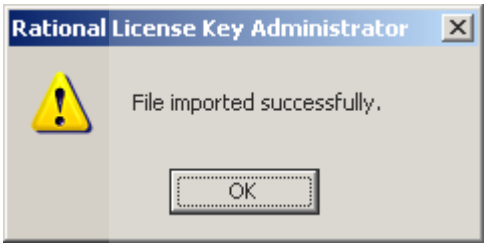
__ 17. Click the **Import** button.

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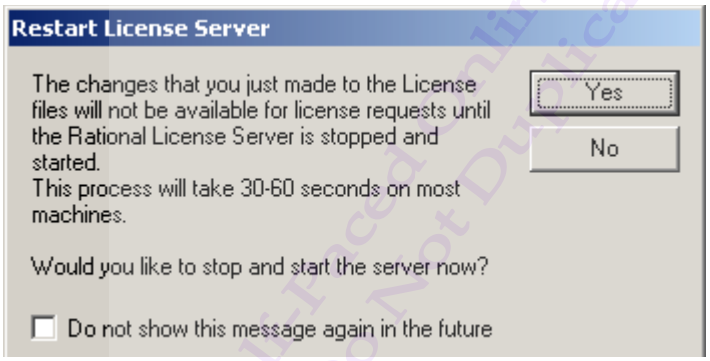
__ 18. In the **Confirm Import** window, click the **Import** button.



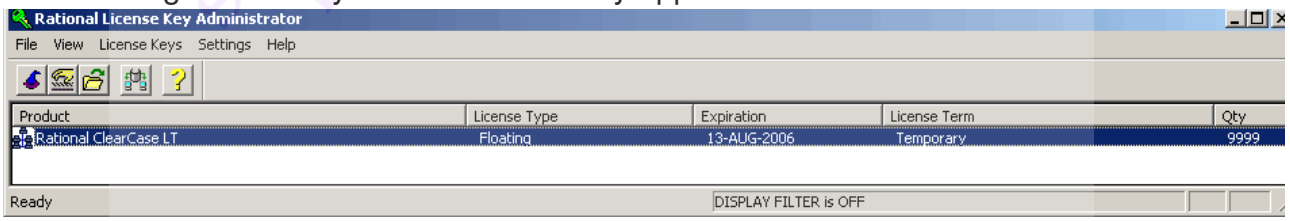
__ 19. Click **OK**.



__ 20. Click **Yes**.


Restart License Server
The changes that you just made to the License files will not be available for license requests until the Rational License Server is stopped and started.
This process will take 30-60 seconds on most machines.
Would you like to stop and start the server now?
Do not show this message again in the future
Yes
No

The Floating license key is now successfully applied.

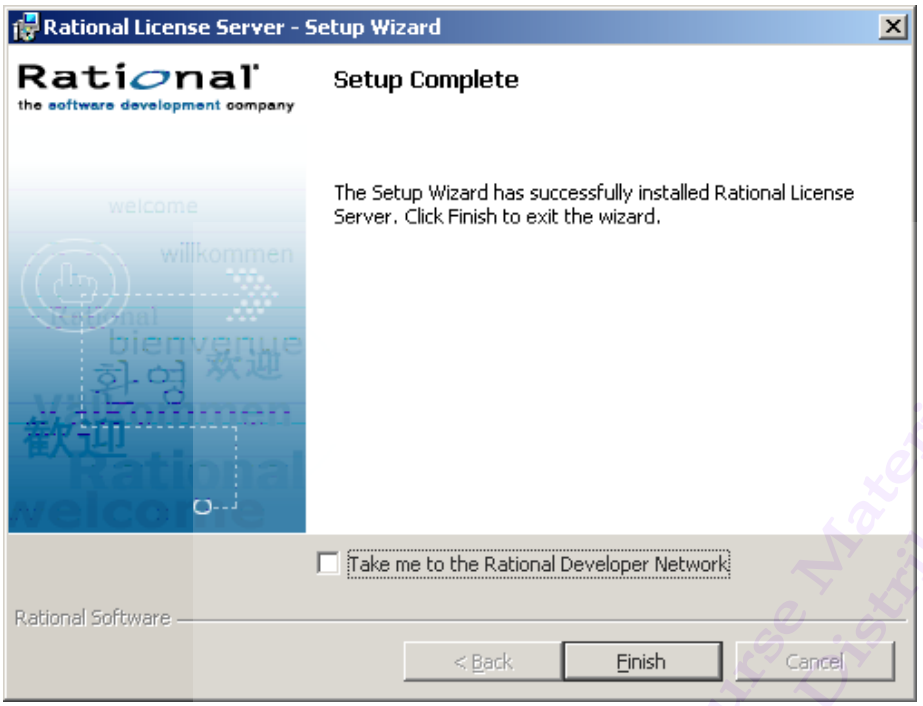


__ 21. Click **File -> Exit**.

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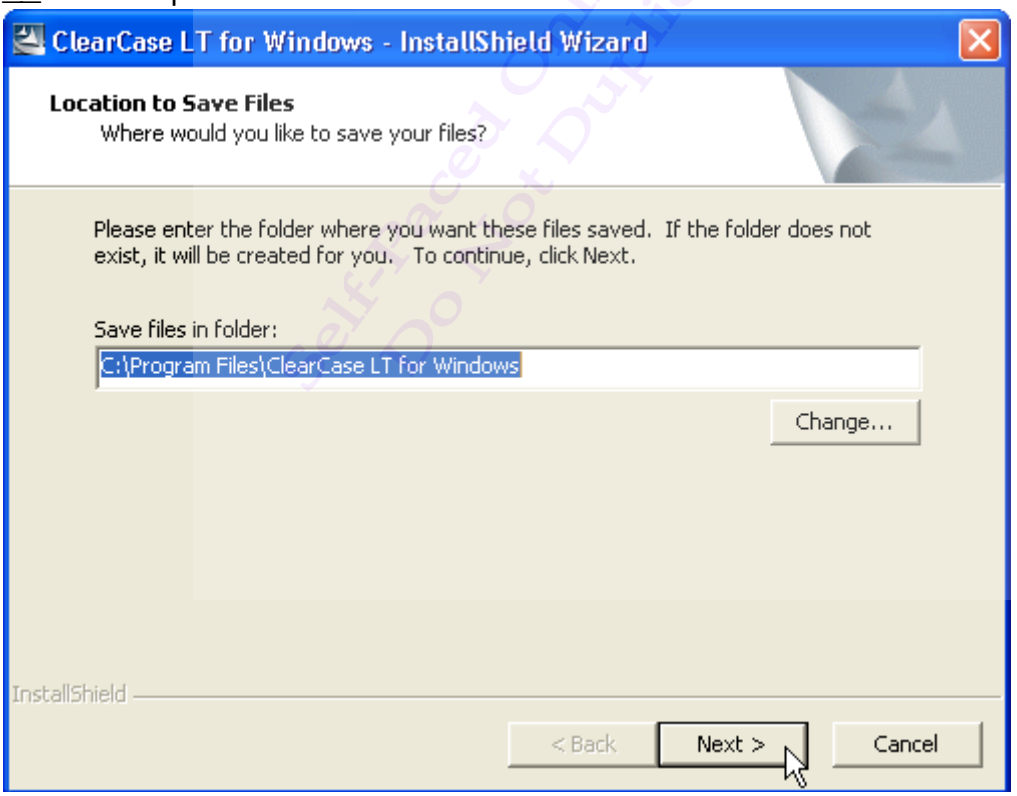
__ 22. Ensure that the **Take me to the Rational developer Network** check box is *not* checked, and then click **Finish.**


Rational License Server - Setup Wizard
Rational
the software development company
Setup Complete
The Setup Wizard has successfully installed Rational License Server. Click Finish to exit the wizard.
Take me to the Rational Developer Network
Rational Software
< Back
Finish
Cancel

Part 3: Installing Rational ClearCase LT Server

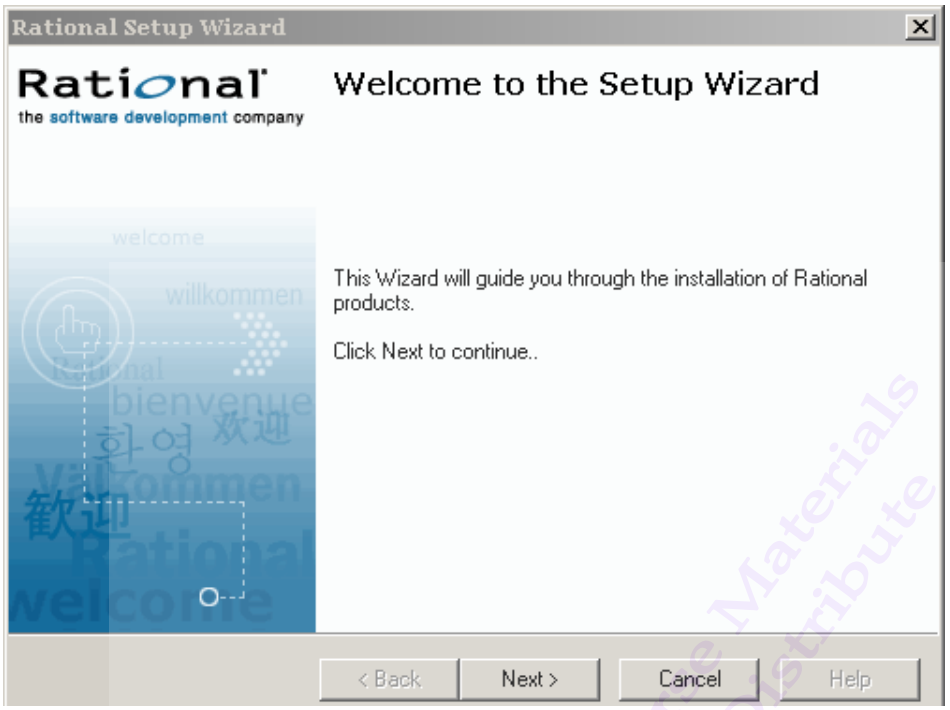
__ 1. Double-click `C8344ML.exe` in the `C:/VB184/Software` folder.

__ 2. Accept the default folder and click **Next**.

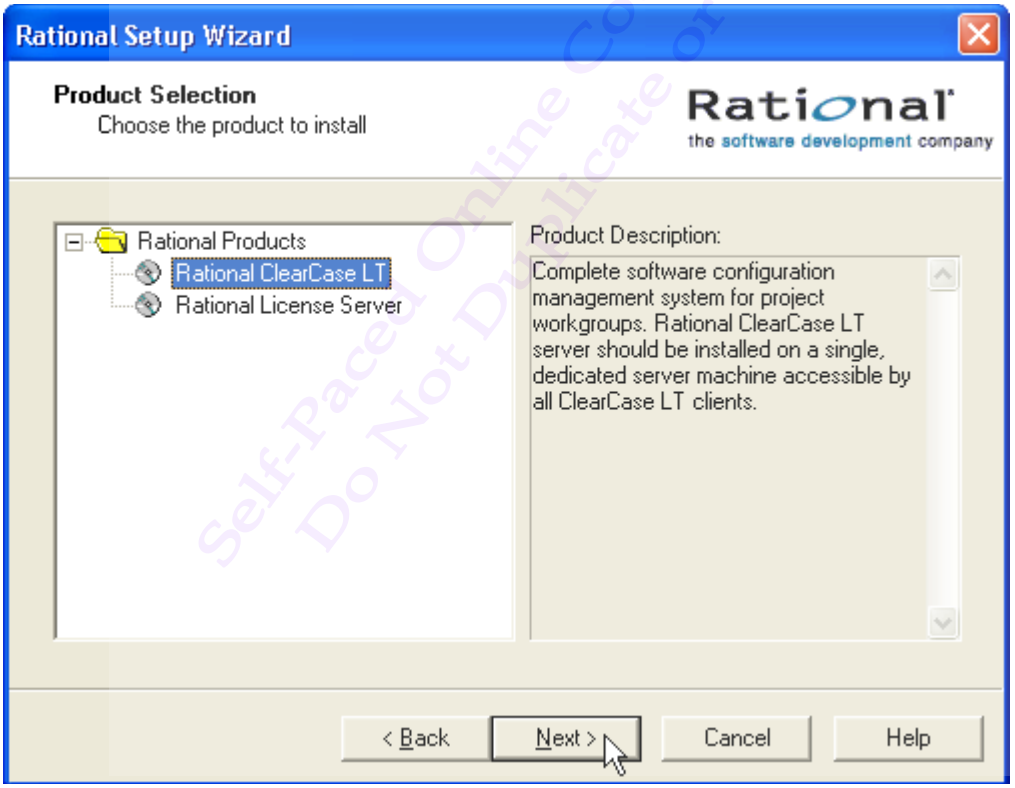

ClearCase LT for Windows - InstallShield Wizard
Location to Save Files
Where would you like to save your files?
Please enter the folder where you want these files saved. If the folder does not exist, it will be created for you. To continue, click Next.
Save files in folder:
C:\Program Files\ClearCase LT for Windows
Change...
InstallShield
< Back
Next >
Cancel

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__ 3. Click **Next**.



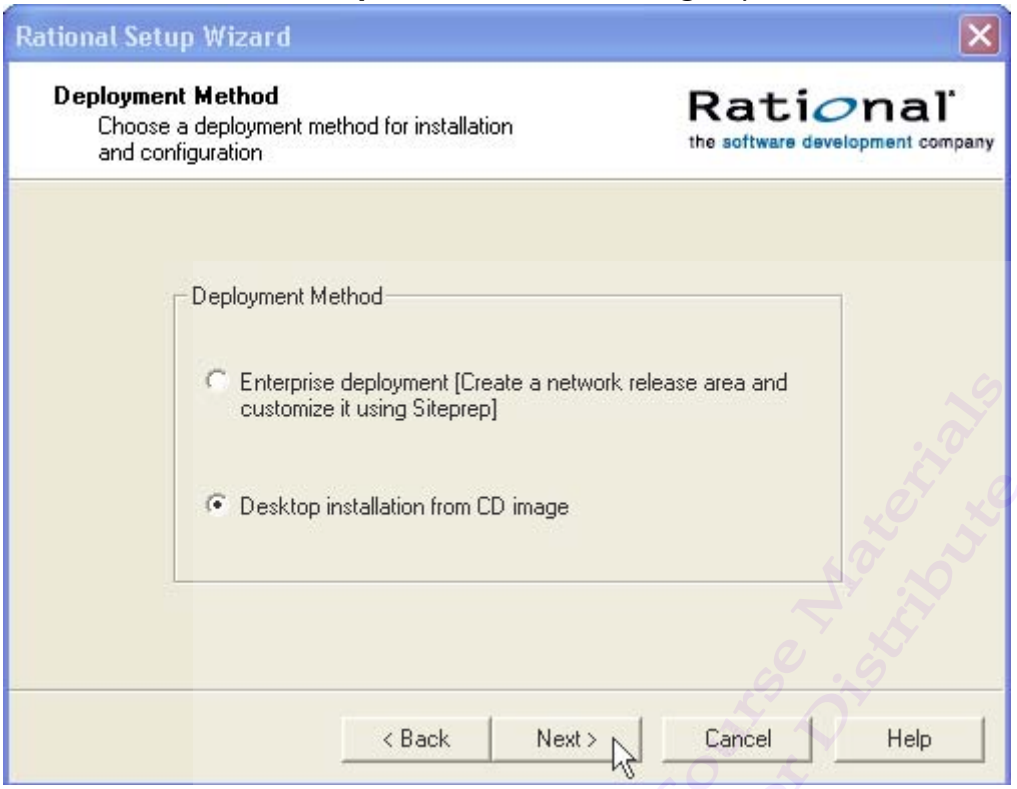
__ 4. Select **Rational ClearCase LT** in the **Rational Products** list and click **Next**.


Rational Setup Wizard
Product Selection
Choose the product to install
Rational
the software development company
Rational Products
Rational ClearCase LT
Rational License Server
Product Description:
Complete software configuration management system for project workgroups. Rational ClearCase LT server should be installed on a single, dedicated server machine accessible by all ClearCase LT clients.
< Back
Next >
Cancel
Help

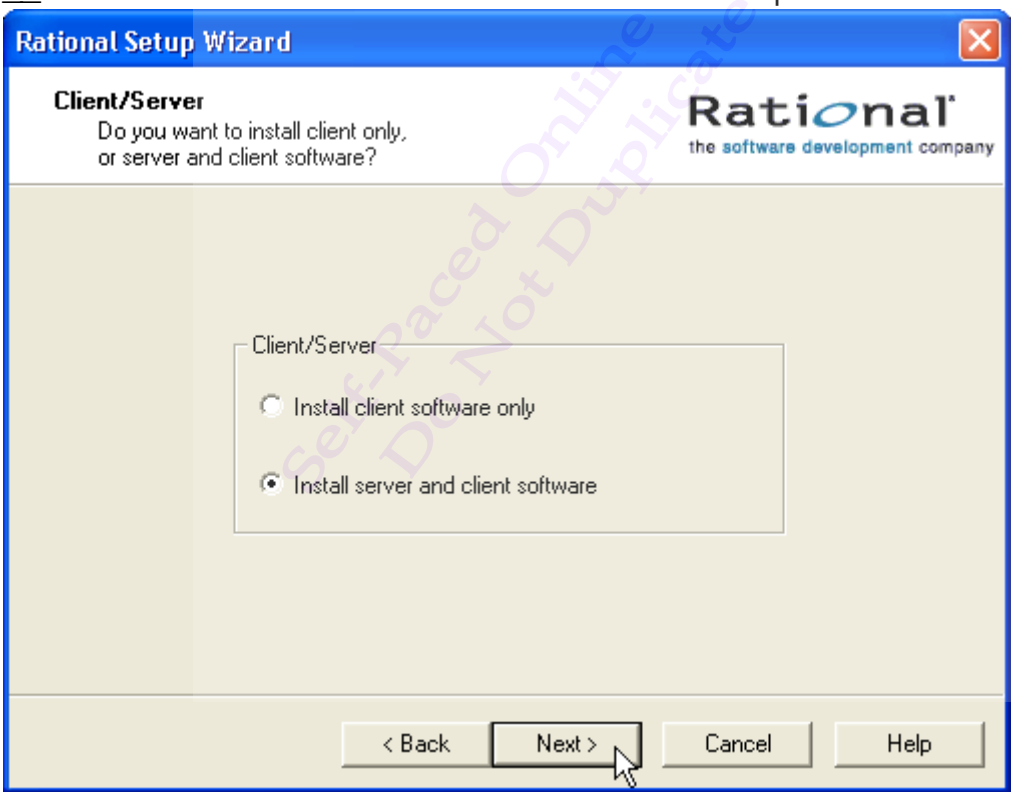
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__ 5. Select the **Desktop install from CD image** option and click **Next**.



__ 6. Select the **Install server and client software** option and click **Next**.

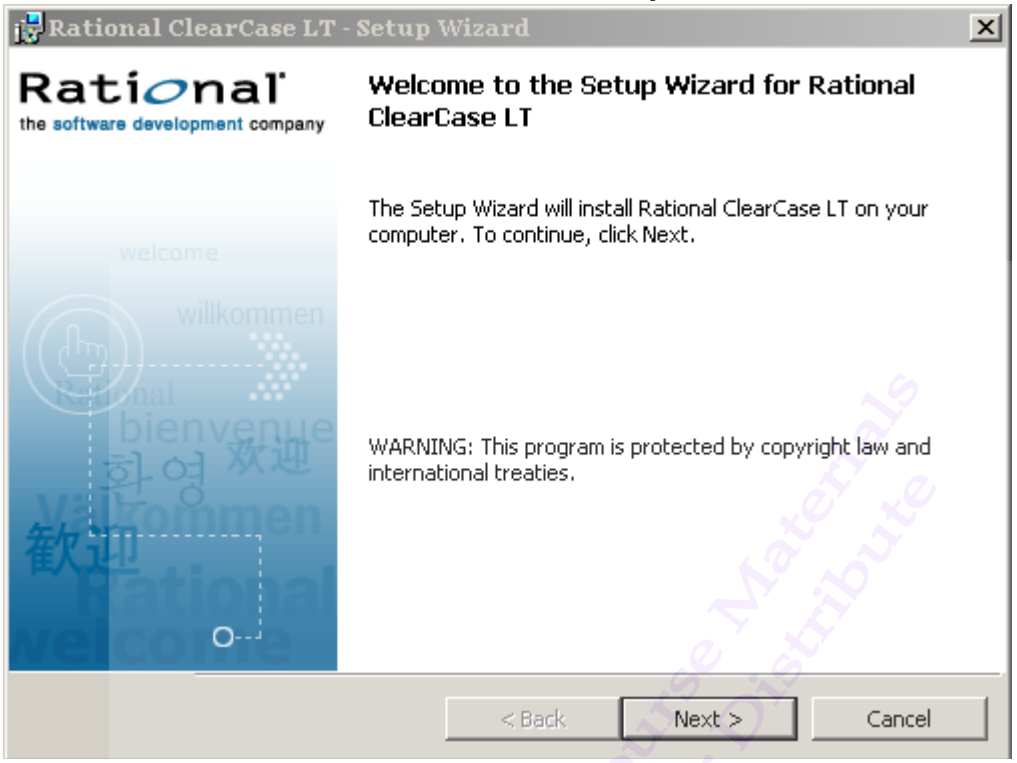


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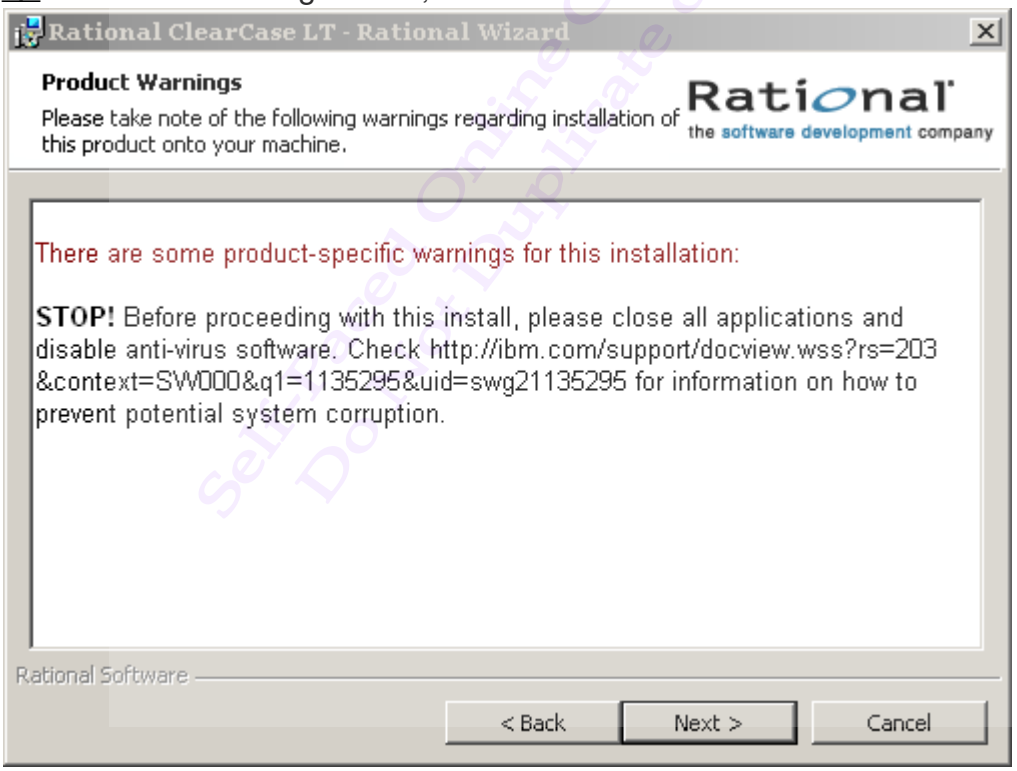
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__ 7. On the **Rational ClearCase LT – Setup Wizard** screen, click **Next.**


Rational ClearCase LT - Setup Wizard
Rational
the software development company
Welcome to the Setup Wizard for Rational ClearCase LT
The Setup Wizard will install Rational ClearCase LT on your computer. To continue, click Next.
WARNING: This program is protected by copyright law and international treaties.
< Back
Next >
Cancel

__ 8. On the warning screen, click **Next**.


Rational ClearCase LT - Rational Wizard
Product Warnings
Please take note of the following warnings regarding installation of this product onto your machine.
Rational
the software development company
There are some product-specific warnings for this installation:
STOP! Before proceeding with this install, please close all applications and disable anti-virus software. Check http://ibm.com/support/docview.wss?rs=203&context=SW000&q1=1135295&uid=swg21135295 for information on how to prevent potential system corruption.
Rational Software
< Back
Next >
Cancel

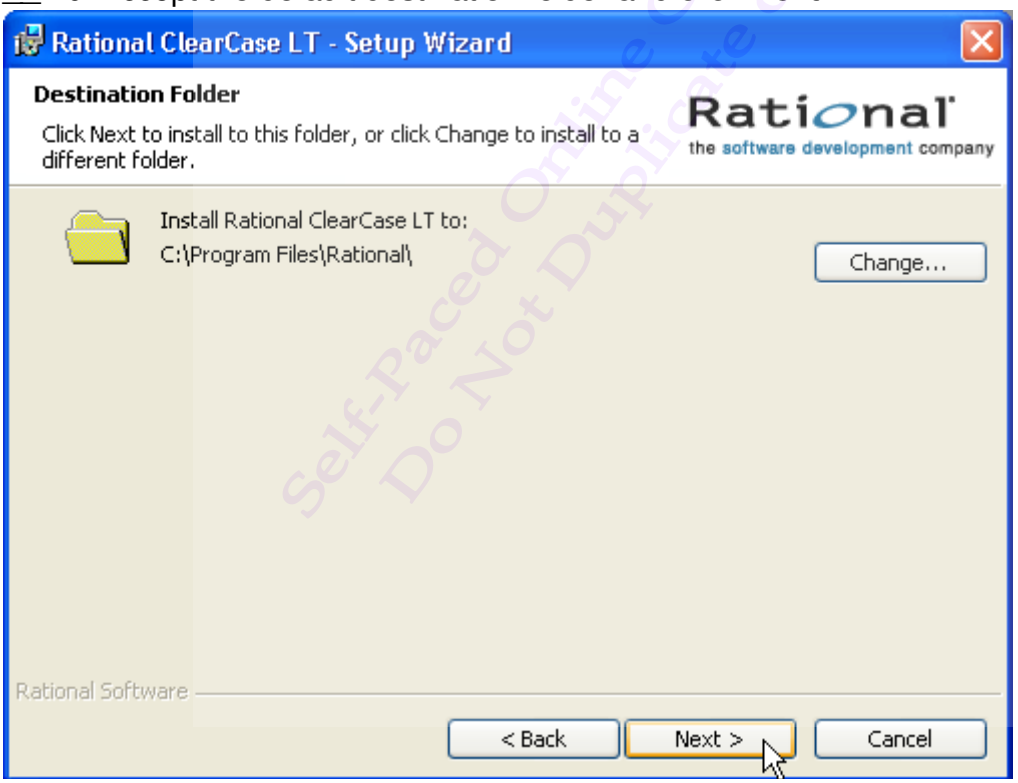
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__ 9. Choose the **I accept the terms in the license agreement** option and click **Next**.


Rational ClearCase LT - Setup Wizard
License Agreement
Please read the Rational and third party licenses prior to acceptance.
Rational
the software development company
I nternational Program License Agreement
Part 1 - General Terms
BY DOWNLOADING, INSTALLING, COPYING, ACCESSING, OR USING THE PROGRAM YOU AGREE TO THE TERMS OF THIS AGREEMENT. IF YOU ARE ACCEPTING THESE TERMS ON BEHALF OF ANOTHER PERSON OR A COMPANY OR OTHER LEGAL ENTITY, YOU REPRESENT AND WARRANT
View
Click View to display the third party terms you are accepting.
I accept the terms in the license agreement
I do not accept the terms in the license agreement
Rational Software
< Back
Next >
Cancel

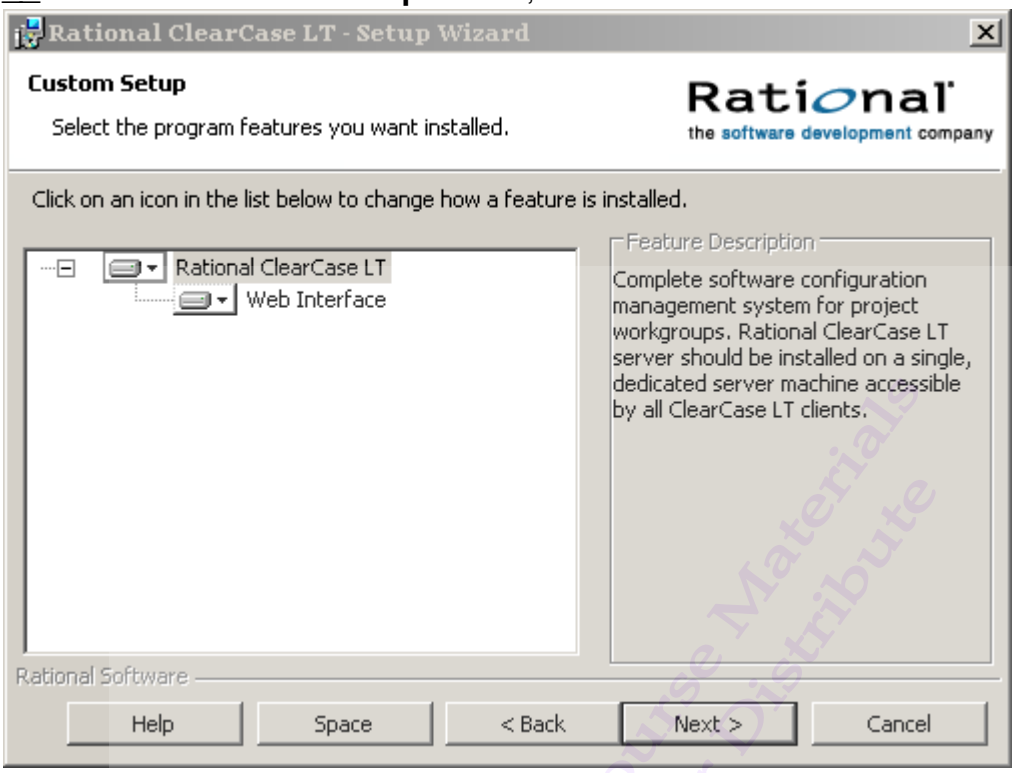
__ 10. Accept the default destination folder and click **Next**.


Rational ClearCase LT - Setup Wizard
Destination Folder
Click Next to install to this folder, or click Change to install to a different folder.
Rational
the software development company
Install Rational ClearCase LT to:
C:\Program Files\Rational\
Change...
Rational Software
< Back
Next >
Cancel

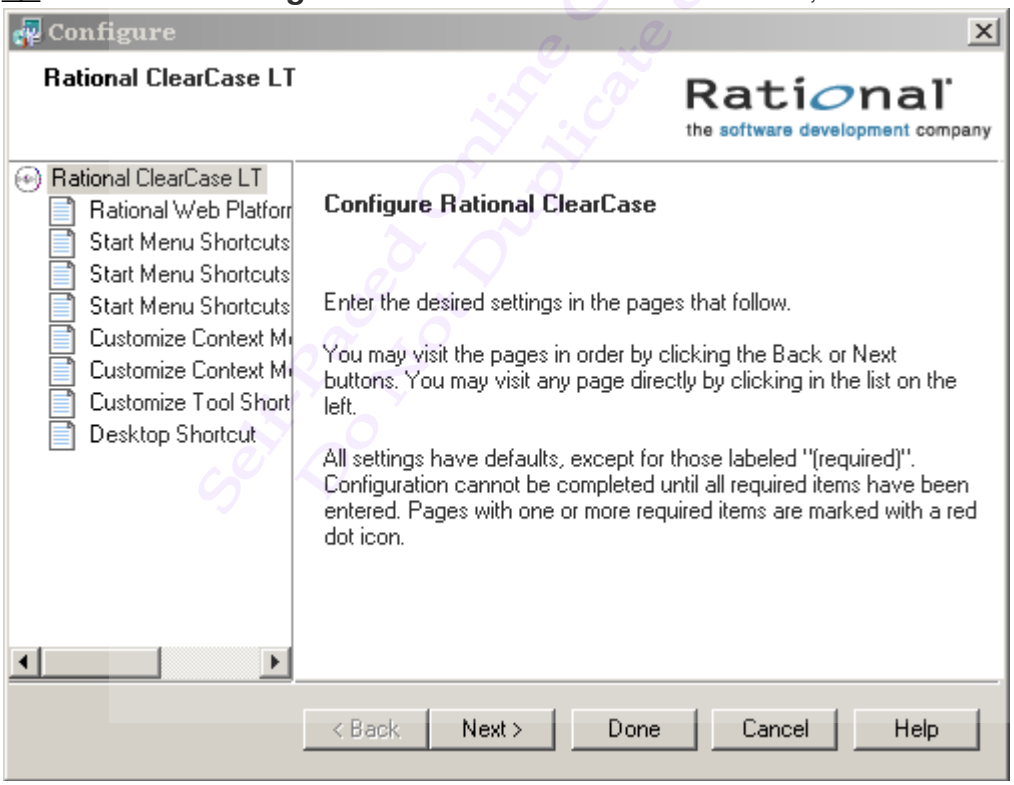
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__ 11. On the **Custom Setup** screen, click **Next**.


Rational ClearCase LT - Setup Wizard
Custom Setup
Select the program features you want installed.
Rational
the software development company
Click on an icon in the list below to change how a feature is installed.
Rational ClearCase LT
Web Interface
Feature Description
Complete software configuration management system for project workgroups. Rational ClearCase LT server should be installed on a single, dedicated server machine accessible by all ClearCase LT clients.
Rational Software
Help
Space
< Back
Next >
Cancel

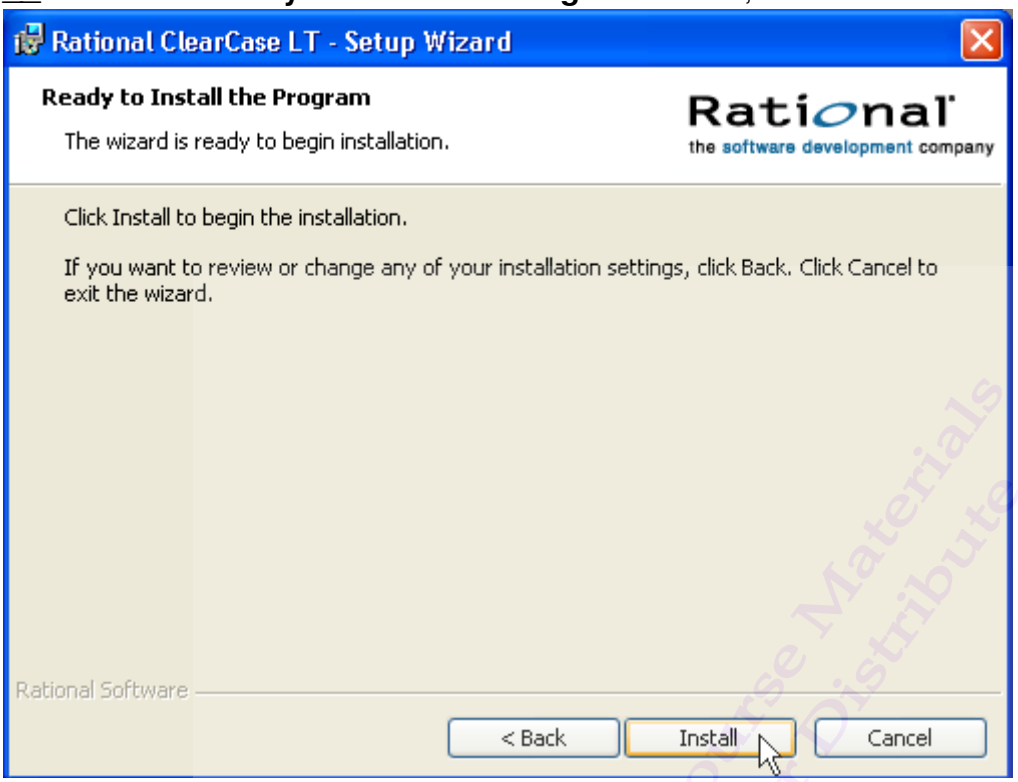
__ 12. On the **Configure Rational ClearCase LT** screen, click **Done**.


Configure
Rational ClearCase LT
Rational
the software development company
Rational ClearCase LT
Rational Web Platfor
Start Menu Shortcuts
Start Menu Shortcuts
Start Menu Shortcuts
Customize Context M
Customize Context M
Customize Tool Short
Desktop Shortcut
Configure Rational ClearCase
Enter the desired settings in the pages that follow.
You may visit the pages in order by clicking the Back or Next buttons. You may visit any page directly by clicking in the list on the left.
All settings have defaults, except for those labeled "(required)". Configuration cannot be completed until all required items have been entered. Pages with one or more required items are marked with a red dot icon.
< Back
Next >
Done
Cancel
Help

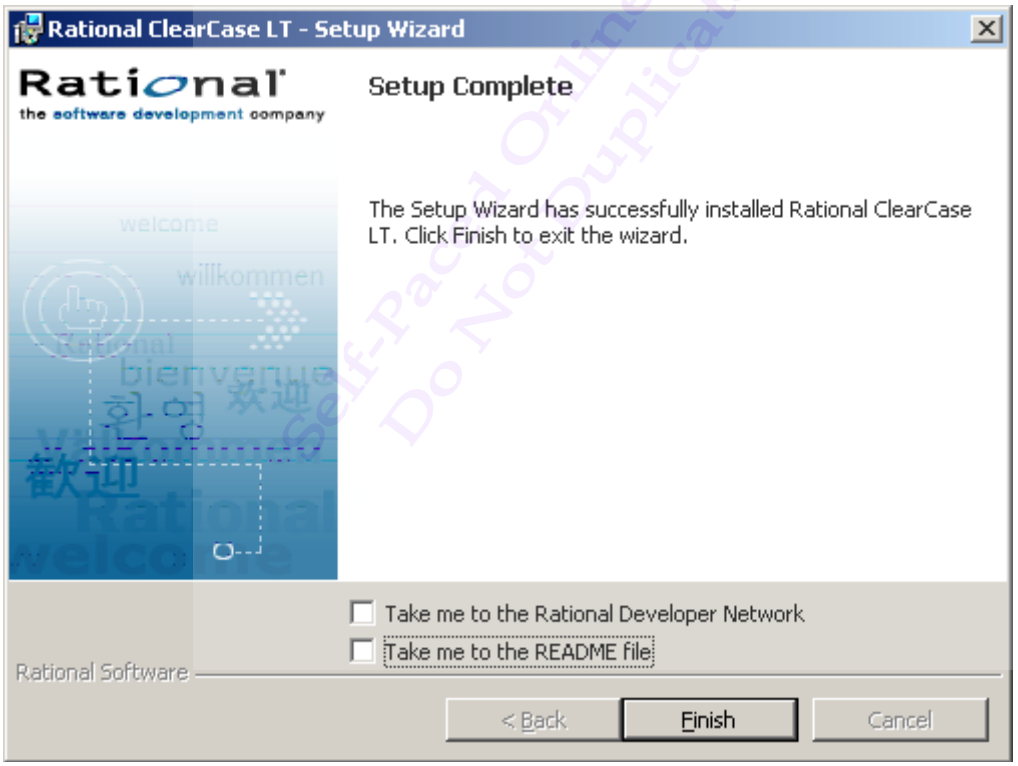
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__ 13. On the **Ready to Install the Program** screen, click **Install**.


Rational ClearCase LT - Setup Wizard
Ready to Install the Program
The wizard is ready to begin installation.
Rational
the software development company
Click Install to begin the installation.
If you want to review or change any of your installation settings, click Back. Click Cancel to exit the wizard.
Rational Software
< Back
Install
Cancel

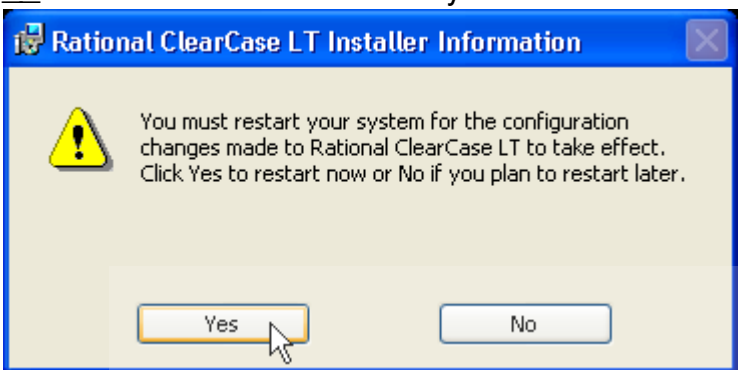
__ 14. When the installation finishes, the **Setup Complete** screen appears. Ensure that the two boxes are not checked, and then click **Finish**.


Rational ClearCase LT - Setup Wizard
Rational
the software development company
Setup Complete
The Setup Wizard has successfully installed Rational ClearCase LT. Click Finish to exit the wizard.
Take me to the Rational Developer Network
Take me to the README file
Rational Software
< Back
Finish
Cancel

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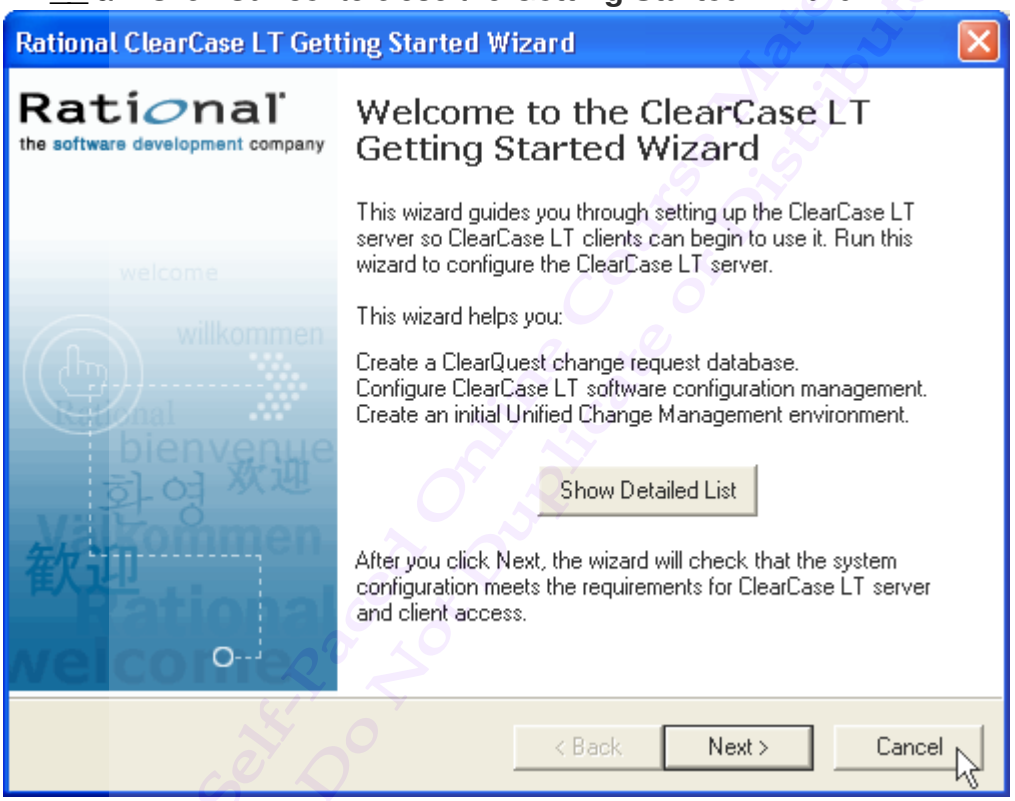
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__ 15. Click **Yes** to restart the system.

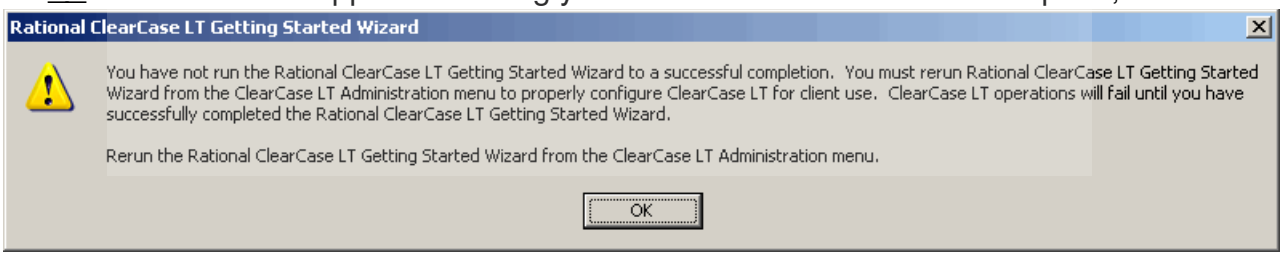

Rational ClearCase LT Installer Information
You must restart your system for the configuration changes made to Rational ClearCase LT to take effect. Click Yes to restart now or No if you plan to restart later.
Yes
No

__ 16. If restarting the system also restarted the firewall, you must shut down the firewall before running the **Getting Started Wizard**.

__ a. Click **Cancel** to close the **Getting Started Wizard**.


Rational ClearCase LT Getting Started Wizard
Rational
the software development company
Welcome to the ClearCase LT Getting Started Wizard
This wizard guides you through setting up the ClearCase LT server so ClearCase LT clients can begin to use it. Run this wizard to configure the ClearCase LT server.
This wizard helps you:
Create a ClearQuest change request database.
Configure ClearCase LT software configuration management.
Create an initial Unified Change Management environment.
Show Detailed List
After you click Next, the wizard will check that the system configuration meets the requirements for ClearCase LT server and client access.
< Back
Next >
Cancel

__ b. If a window appears warning you that the installation is not complete, click **OK**.


Rational ClearCase LT Getting Started Wizard
You have not run the Rational ClearCase LT Getting Started Wizard to a successful completion. You must rerun Rational ClearCase LT Getting Started Wizard from the ClearCase LT Administration menu to properly configure ClearCase LT for client use. ClearCase LT operations will fail until you have successfully completed the Rational ClearCase LT Getting Started Wizard.
Rerun the Rational ClearCase LT Getting Started Wizard from the ClearCase LT Administration menu.
OK

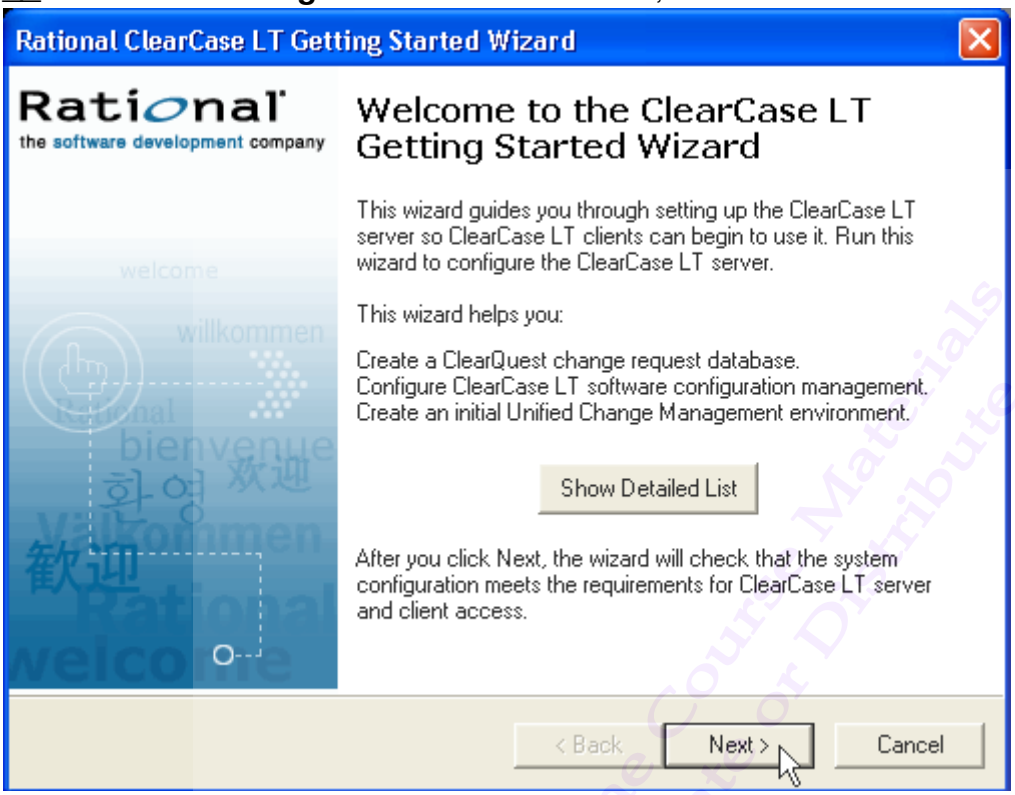
__ c. Shut down the firewall as described above in Part 2, **Preparing the setup environment**.

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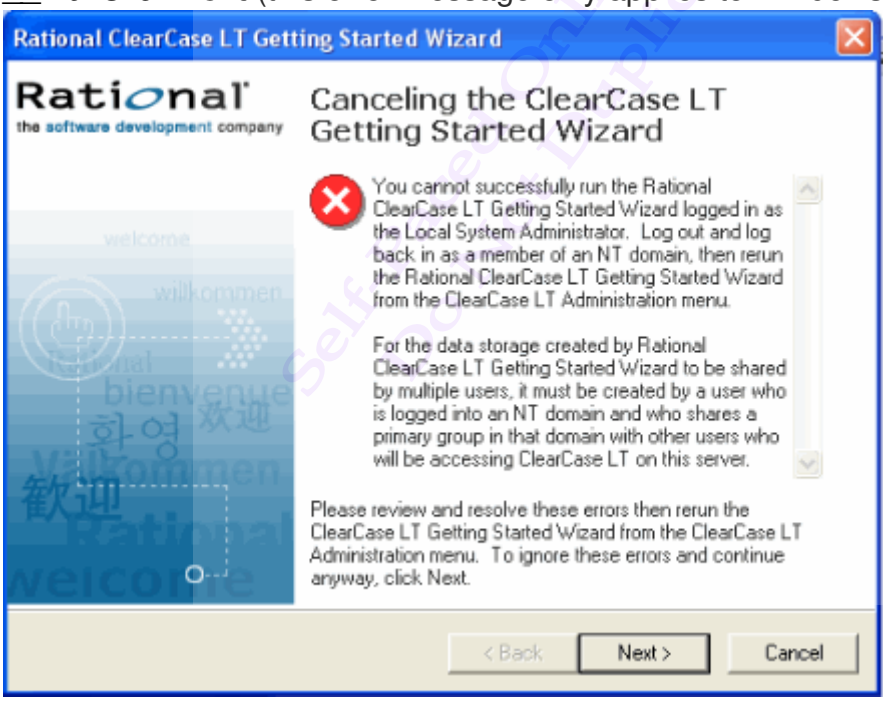
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__ 17. Click **Start -> Programs -> Rational Software -> Rational ClearCase -> Administration -> Getting Started Wizard**.

__ 18. On the **Getting Started Wizard** screen, click **Next**.

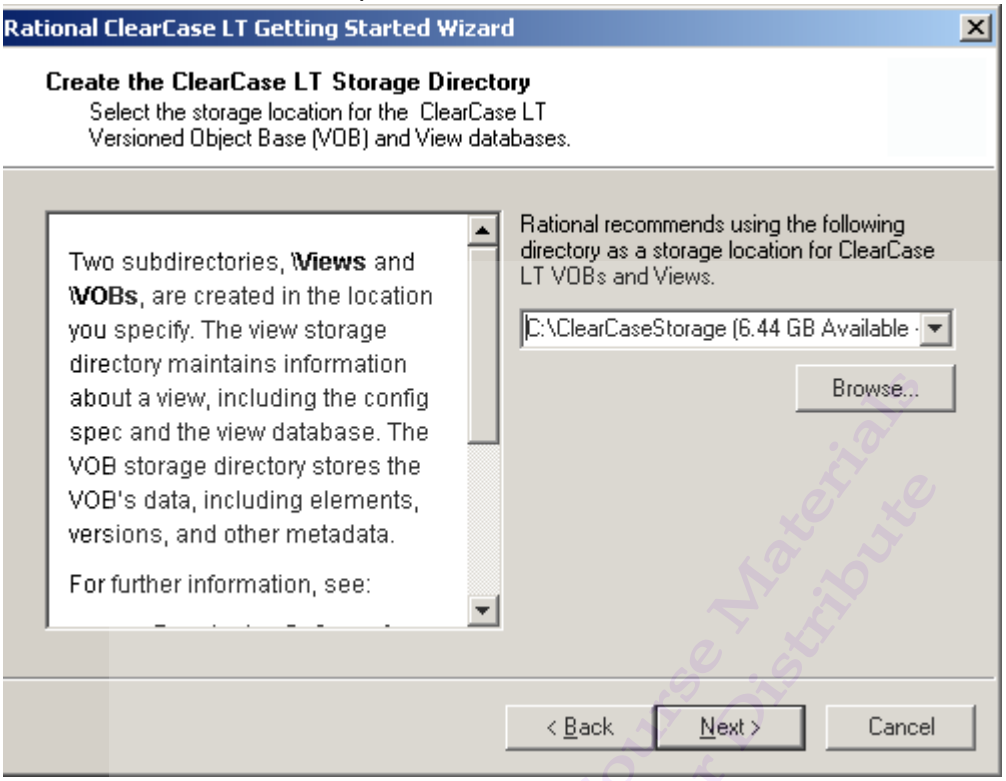

Rational ClearCase LT Getting Started Wizard
Rational
the software development company
Welcome to the ClearCase LT Getting Started Wizard
This wizard guides you through setting up the ClearCase LT server so ClearCase LT clients can begin to use it. Run this wizard to configure the ClearCase LT server.
This wizard helps you:
Create a ClearQuest change request database.
Configure ClearCase LT software configuration management.
Create an initial Unified Change Management environment.
Show Detailed List
After you click Next, the wizard will check that the system configuration meets the requirements for ClearCase LT server and client access.
< Back
Next >
Cancel

__ 19. Click **Next** (this error message only applies to Windows XP).


Rational ClearCase LT Getting Started Wizard
Rational
the software development company
Canceling the ClearCase LT Getting Started Wizard
You cannot successfully run the Rational ClearCase LT Getting Started Wizard logged in as the Local System Administrator. Log out and log back in as a member of an NT domain, then rerun the Rational ClearCase LT Getting Started Wizard from the ClearCase LT Administration menu.
For the data storage created by Rational ClearCase LT Getting Started Wizard to be shared by multiple users, it must be created by a user who is logged into an NT domain and who shares a primary group in that domain with other users who will be accessing ClearCase LT on this server.
Please review and resolve these errors then rerun the ClearCase LT Getting Started Wizard from the ClearCase LT Administration menu. To ignore these errors and continue anyway, click Next.
< Back
Next >
Cancel

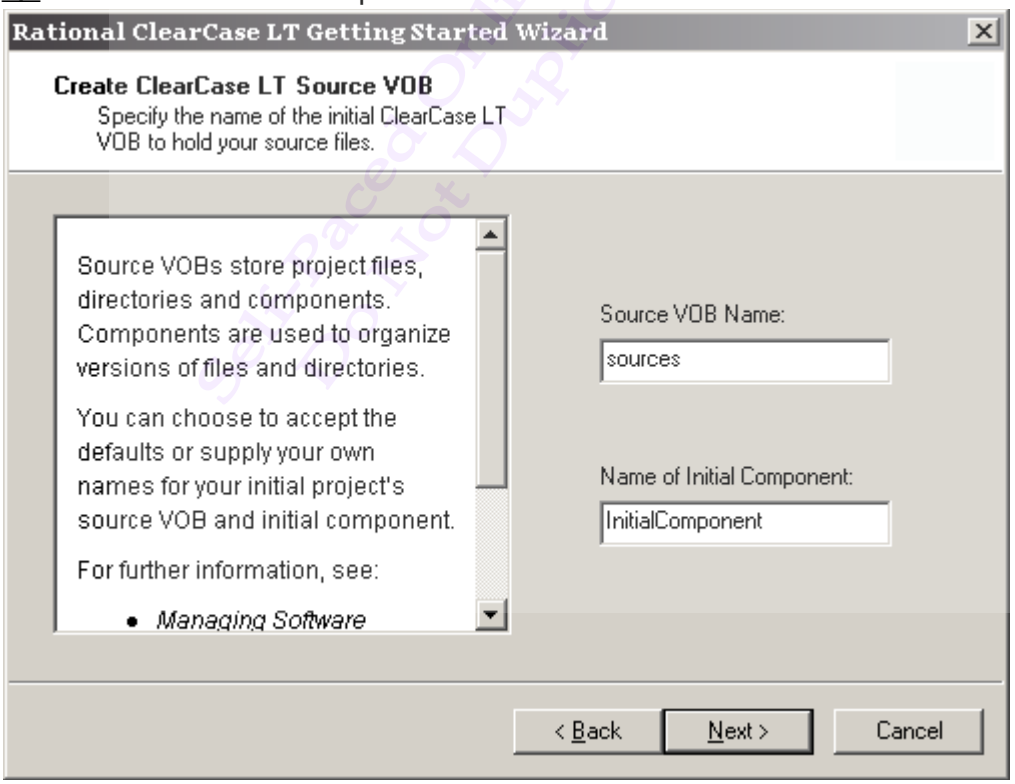
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__ 20. Click **Next** to accept the default folder.


Rational ClearCase LT Getting Started Wizard
Create the ClearCase LT Storage Directory
Select the storage location for the ClearCase LT Versioned Object Base (VOB) and View databases.
Two subdirectories, \Views and \VOBs, are created in the location you specify. The view storage directory maintains information about a view, including the config spec and the view database. The VOB storage directory stores the VOB's data, including elements, versions, and other metadata.
For further information, see:
Rational recommends using the following directory as a storage location for ClearCase LT VOBs and Views.
C:\ClearCaseStorage (6.44 GB Available
Browse...
< Back
Next >
Cancel

__ 21. Click **OK** on the **Rational ClearCase LT Getting Started Wizard** window, which states, **"The selected volume C:\ClearCaseStorage is not an NTFS volume..."**

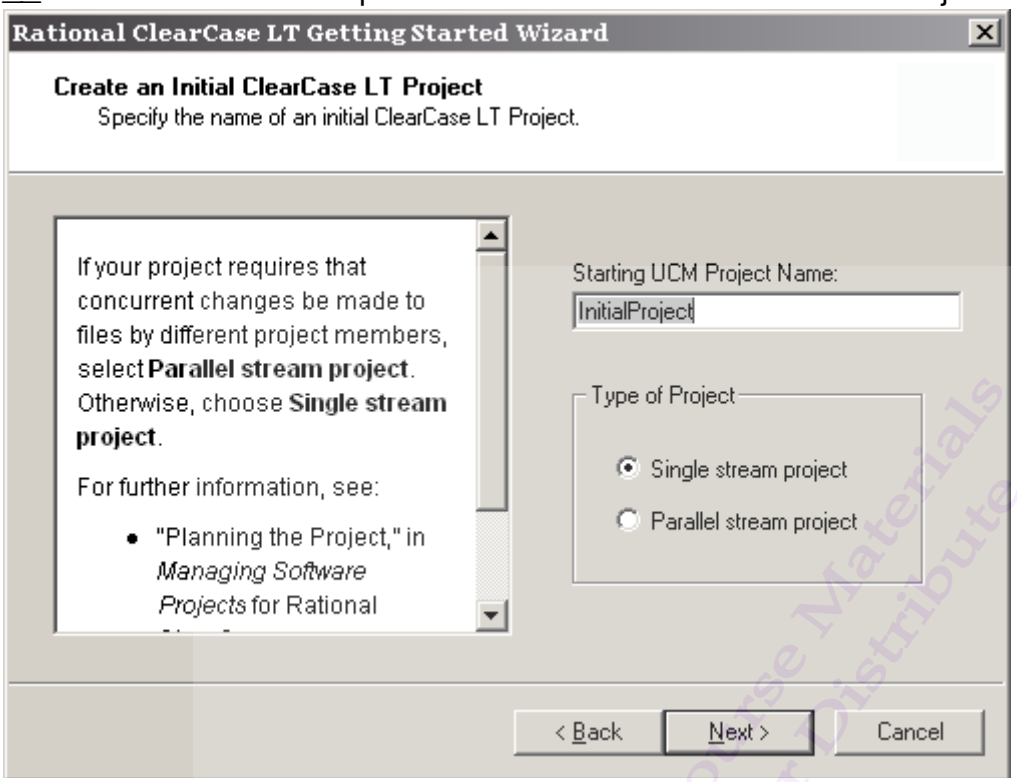
__ 22. Click **Next** to accept the default name of the ClearCase LT VOB.


Rational ClearCase LT Getting Started Wizard
Create ClearCase LT Source VOB
Specify the name of the initial ClearCase LT VOB to hold your source files.
Source VOBs store project files, directories and components. Components are used to organize versions of files and directories.
You can choose to accept the defaults or supply your own names for your initial project's source VOB and initial component.
For further information, see:
Managing Software
Source VOB Name:
sources
Name of Initial Component:
InitialComponent
< Back
Next >
Cancel

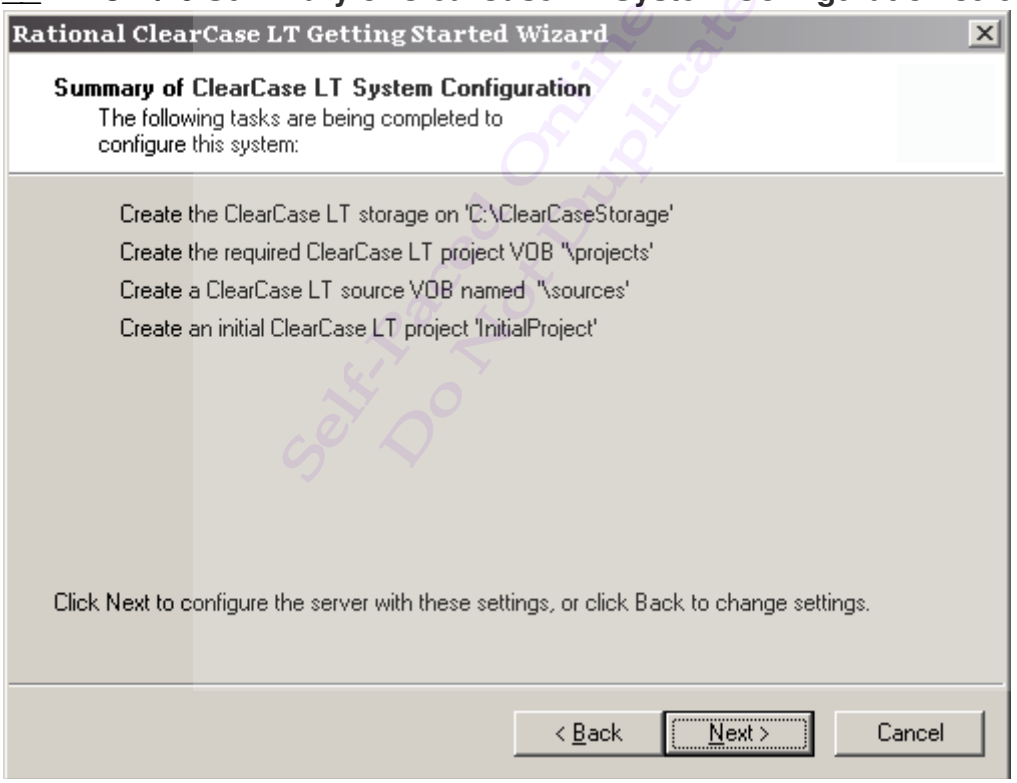
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__ 23. Click **Next** to accept the default name of the ClearCase Project.


Rational ClearCase LT Getting Started Wizard
Create an Initial ClearCase LT Project
Specify the name of an initial ClearCase LT Project.
If your project requires that concurrent changes be made to files by different project members, select Parallel stream project. Otherwise, choose Single stream project.
For further information, see:
"Planning the Project," in Managing Software Projects for Rational
Starting UCM Project Name:
InitialProject
Type of Project
Single stream project
Parallel stream project
< Back
Next >
Cancel

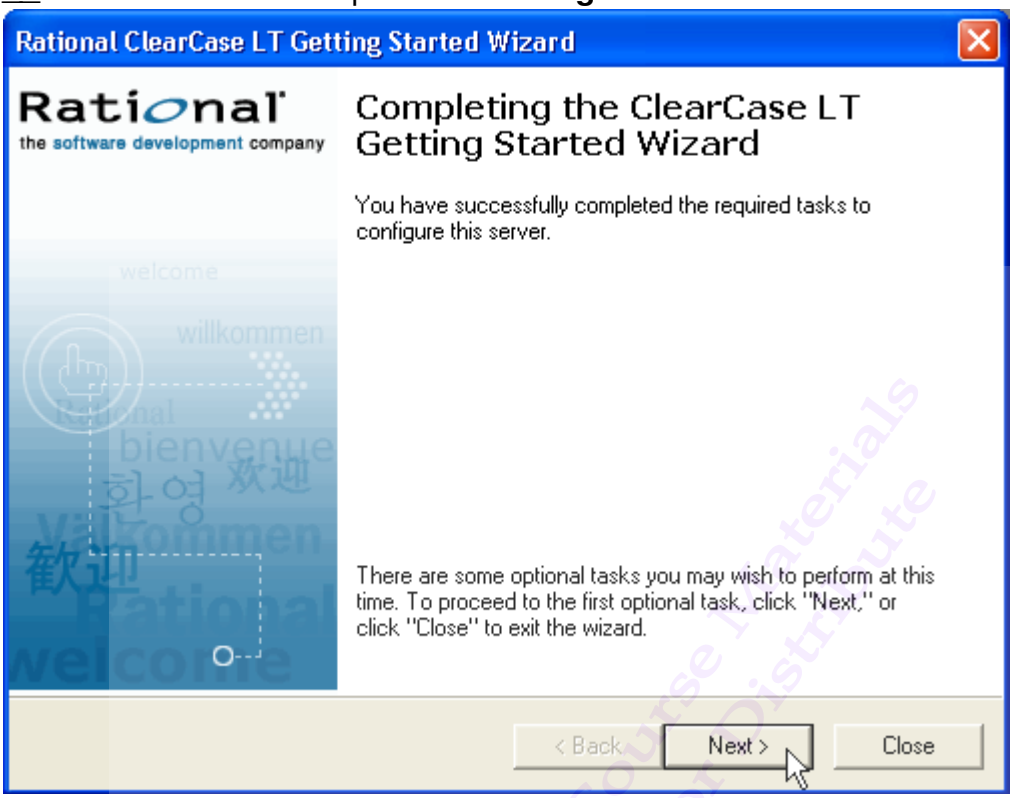
__ 24. On the **Summary of ClearCase LT System Configuration** screen, click **Next**.


Rational ClearCase LT Getting Started Wizard
Summary of ClearCase LT System Configuration
The following tasks are being completed to configure this system:
Create the ClearCase LT storage on 'C:\ClearCaseStorage'
Create the required ClearCase LT project VOB '\projects'
Create a ClearCase LT source VOB named '\sources'
Create an initial ClearCase LT project 'InitialProject'
Click Next to configure the server with these settings, or click Back to change settings.
< Back
Next >
Cancel

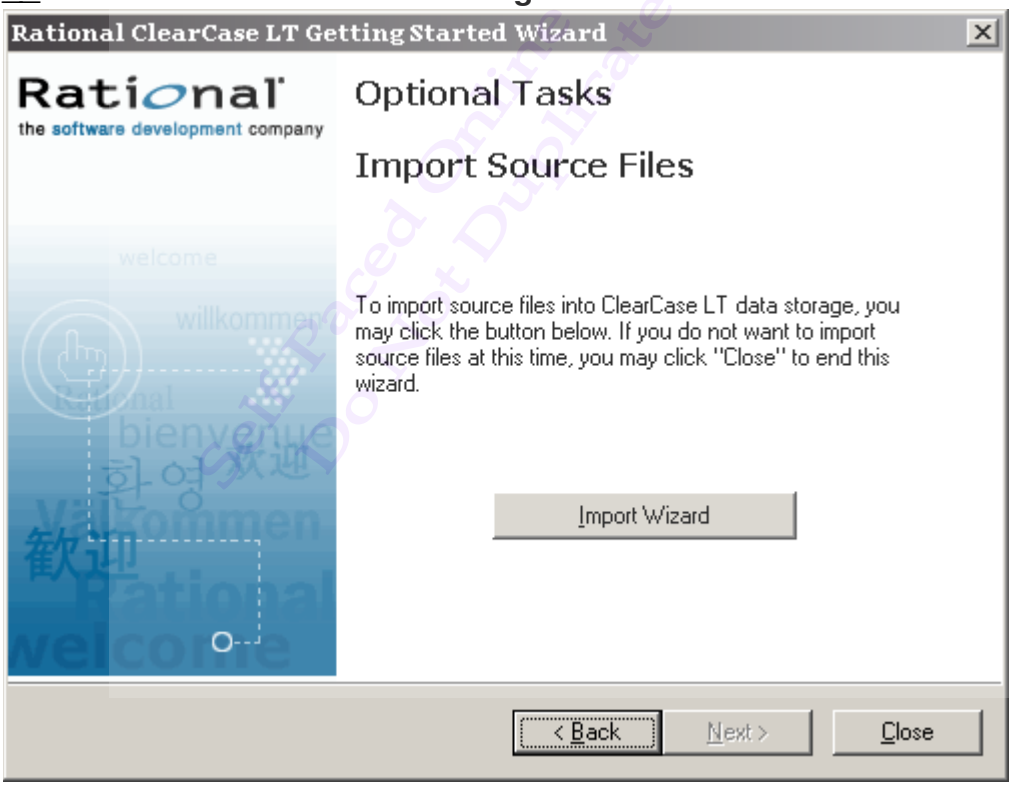
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__ 25. Click **Next** to complete the **Getting Started Wizard**.


Rational ClearCase LT Getting Started Wizard
Rational
the software development company
Completing the ClearCase LT Getting Started Wizard
You have successfully completed the required tasks to configure this server.
There are some optional tasks you may wish to perform at this time. To proceed to the first optional task, click "Next," or click "Close" to exit the wizard.
< Back
Next >
Close

__ 26. Click **Close** to exit the **Getting Started Wizard**.


Rational ClearCase LT Getting Started Wizard
Rational
the software development company
Optional Tasks
Import Source Files
To import source files into ClearCase LT data storage, you may click the button below. If you do not want to import source files at this time, you may click "Close" to end this wizard.
Import Wizard
< Back
Next >
Close

__ 27. Click **Start -> Programs -> Rational Software -> Rational License Key Administrator**.

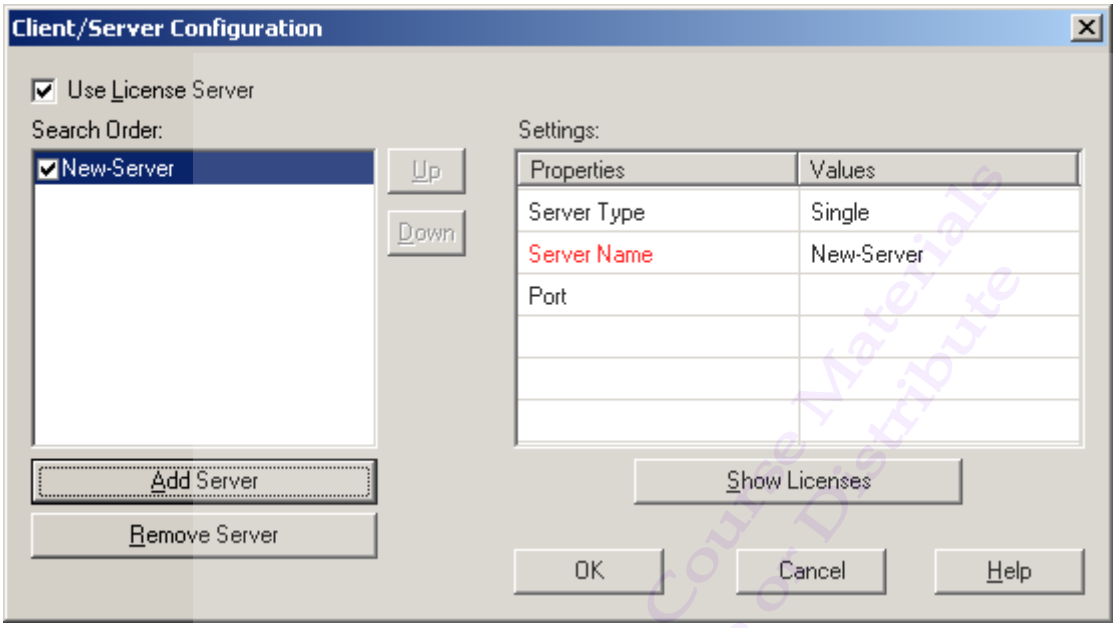
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__ 28. Click **Cancel** to close the **License Key Administrator Wizard**.

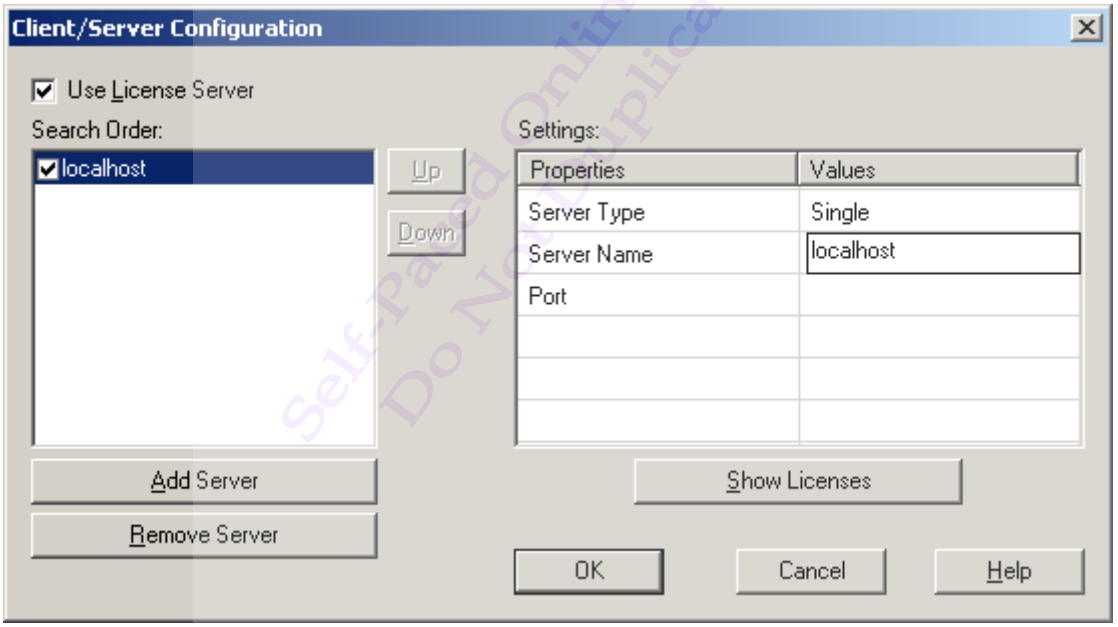
__ 29. From the menu bar of the **License Key Administrator** window, click **Settings** -> **Client/Server Configuration...**

__ 30. Check the **Use License Server** box.

__ 31. Click the **Add Server** button.



__ 32. Enter `localhost` as the Server Name.



__ 33. Click **OK**.

__ 34. Click **File -> Exit** to close Rational License Key Administrator.

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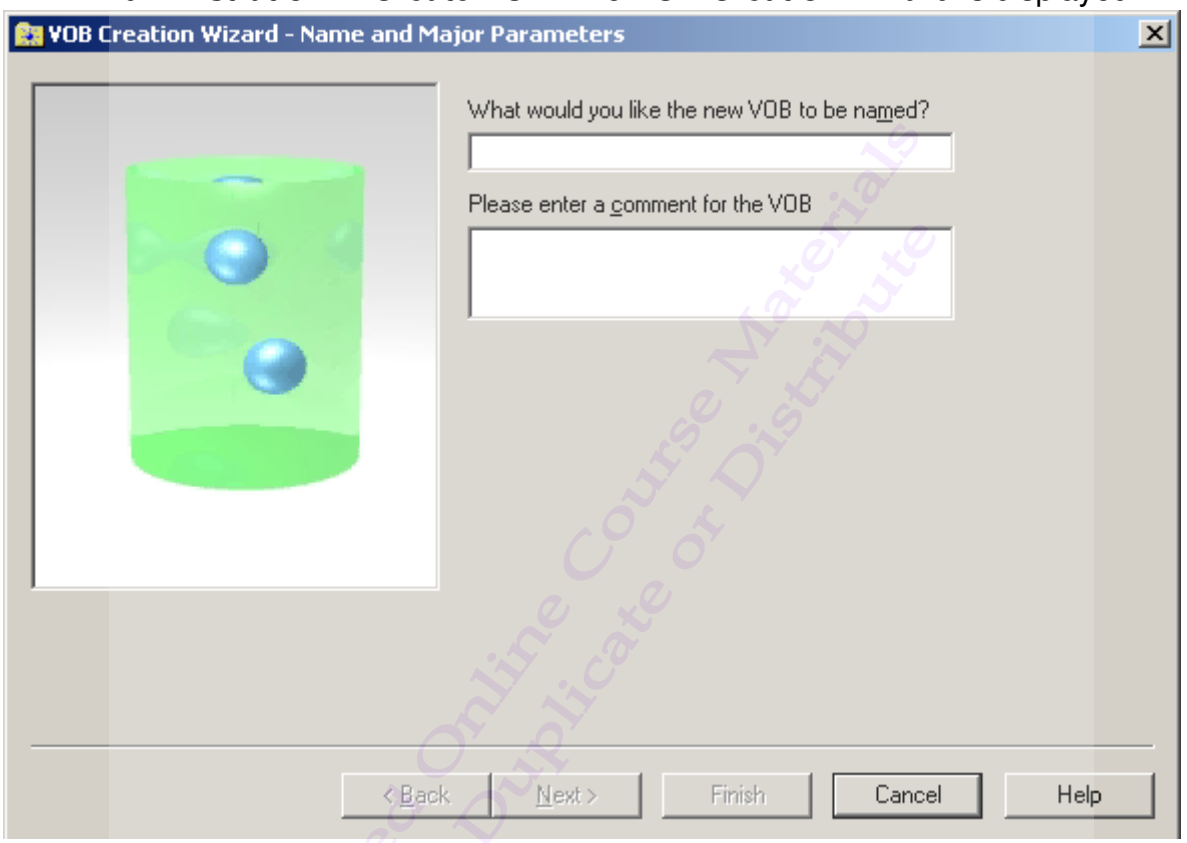
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Part 4: Creating the VOB and view

in this part, you will create a view and VOB (versioned object base) storage on the server that will contain the shared projects.

To create a Rational ClearCase VOB, complete the following steps:

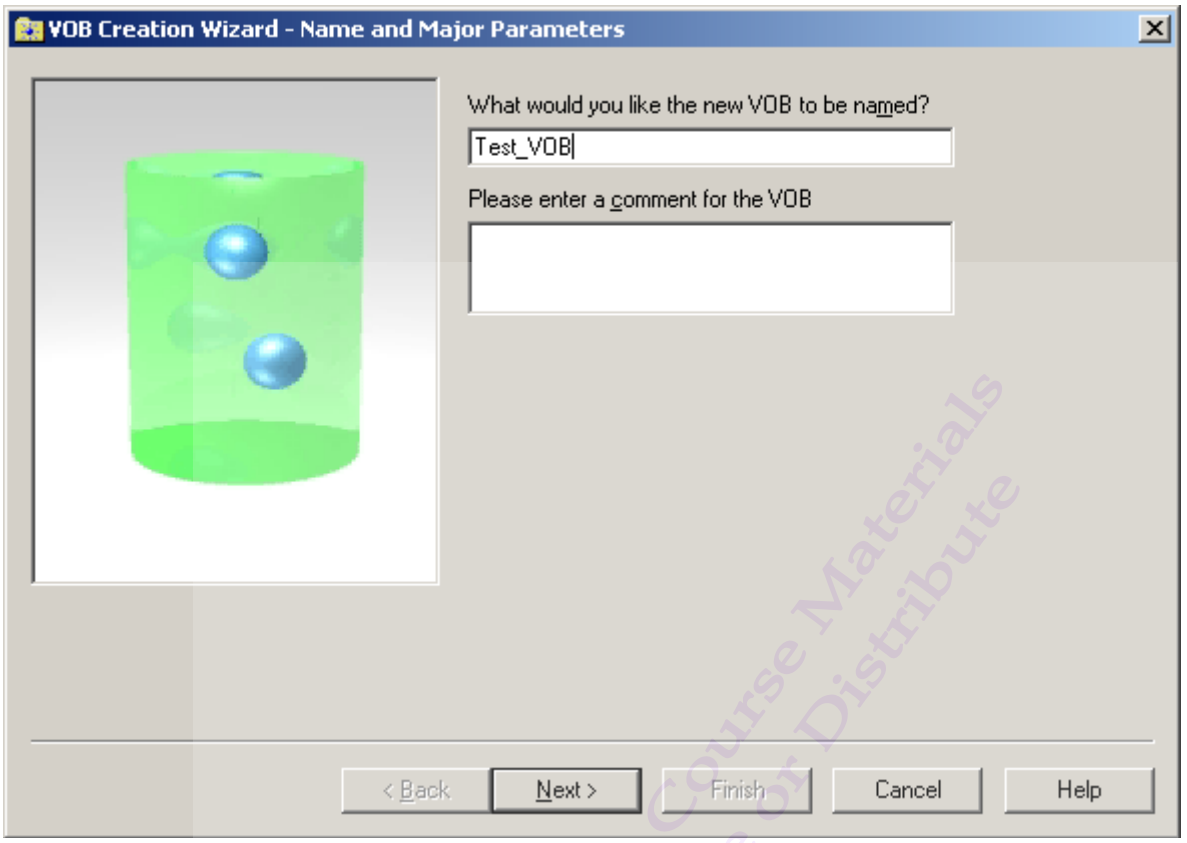
__ 1. Click **Start -> Programs -> Rational Software -> Rational ClearCase -> Administration -> Create VOB**. The **VOB Creation Wizard** is displayed.


VOB Creation Wizard - Name and Major Parameters
What would you like the new VOB to be named?
Please enter a comment for the VOB
< Back
Next >
Finish
Cancel
Help

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__ 2. Enter `Test_VOB` as follows:


VOB Creation Wizard - Name and Major Parameters
What would you like the new VOB to be named?
Test_VOB
Please enter a comment for the VOB
< Back
Next >
Finish
Cancel
Help

__ 3. Click **Next**.

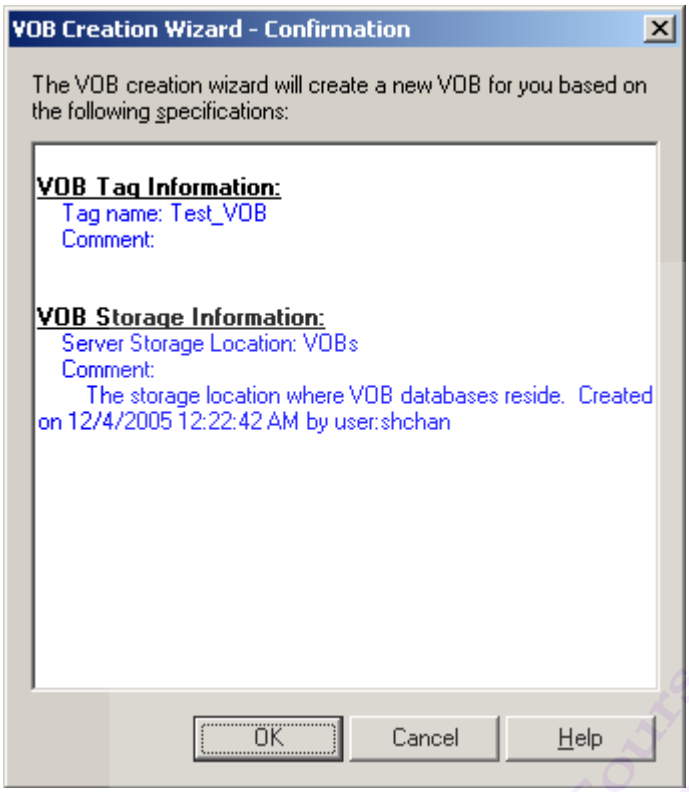
__ 4. Select **Allow this VOB to contain multiple components**.

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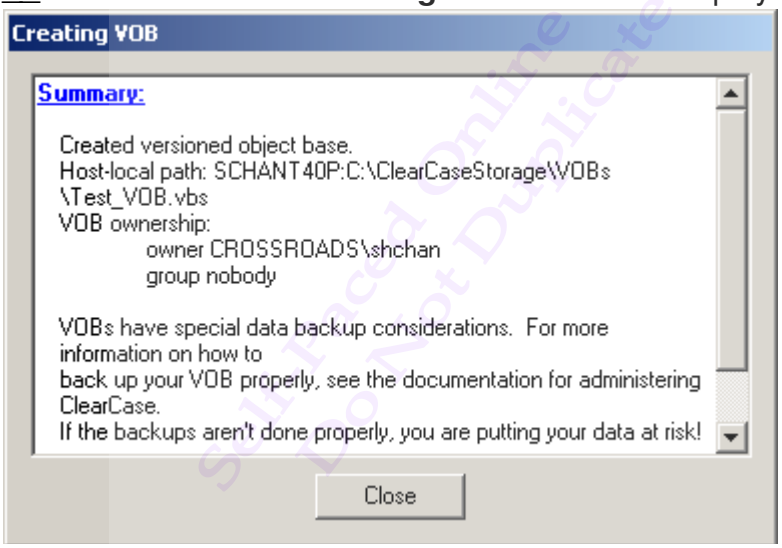
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__ 5. Click **Finish**. The **VOB creation confirmation** is displayed.


VOB Creation Wizard - Confirmation
The VOB creation wizard will create a new VOB for you based on the following specifications:
VOB Tag Information:
Tag name: Test_VOB
Comment:
VOB Storage Information:
Server Storage Location: VOBs
Comment:
The storage location where VOB databases reside. Created on 12/4/2005 12:22:42 AM by user:shchan
OK
Cancel
Help

__ 6. Click **OK**. The **Creating VOB** window is displayed.

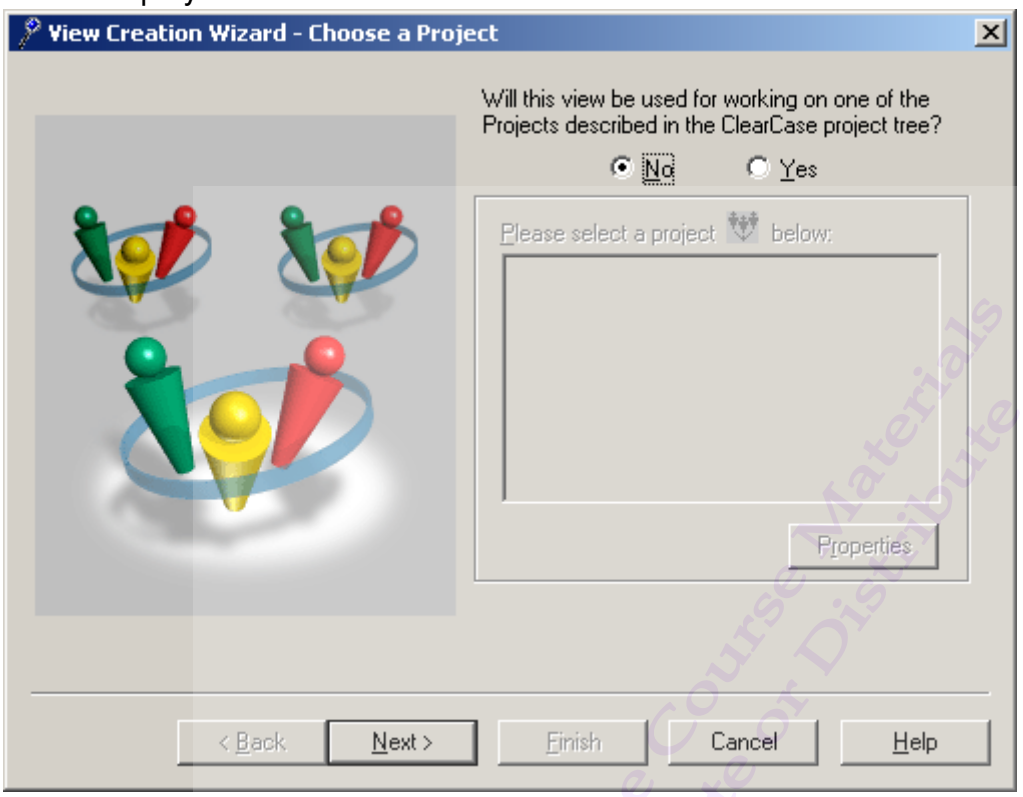

Creating VOB
Summary:
Created versioned object base.
Host-local path: SCHANT40P:C:\ClearCaseStorage\VOBs\Test_VOB.vbs
VOB ownership:
owner CROSSROADS\shchan
group nobody
VOBs have special data backup considerations. For more information on how to back up your VOB properly, see the documentation for administering ClearCase.
If the backups aren't done properly, you are putting your data at risk!
Close

__ 7. Click **Close**.

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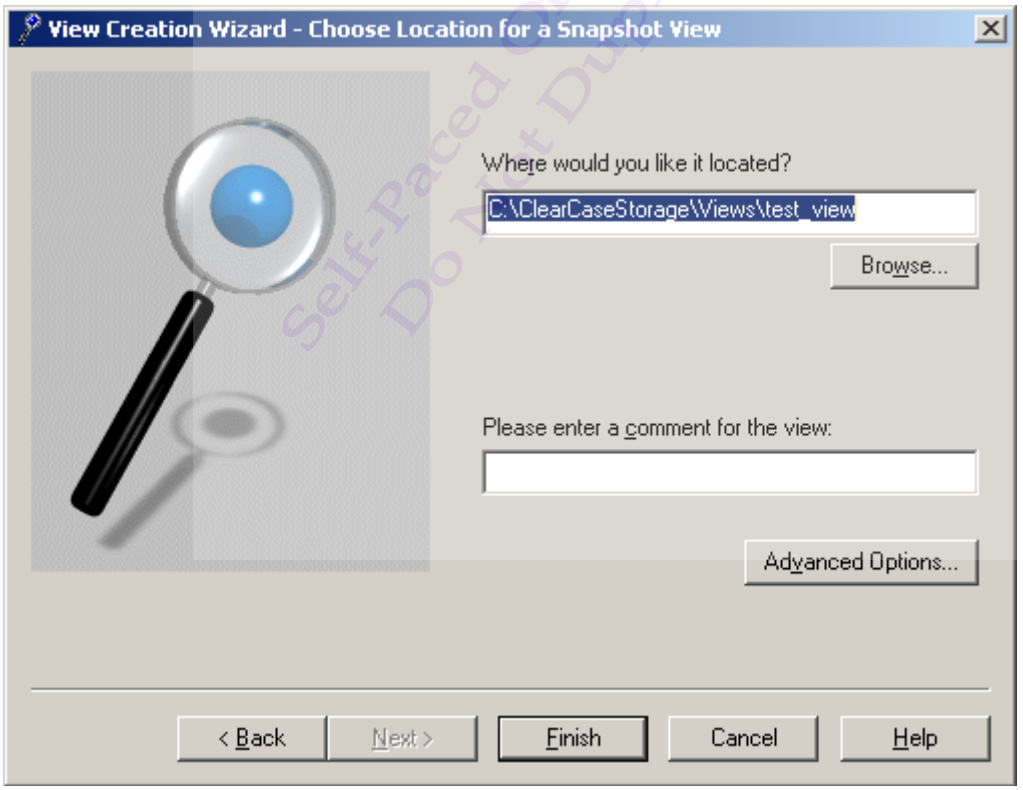
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__ 8. To create a Rational ClearCase view, click **Start -> Programs -> Rational Software -> Rational ClearCase -> Create View**. The **View Creation Wizard** is displayed.


View Creation Wizard - Choose a Project
Will this view be used for working on one of the Projects described in the ClearCase project tree?
No
Yes
Please select a project below:
Properties
< Back
Next >
Finish
Cancel
Help

__ 9. Click **Next**.

__ 10. Enter `C:\ClearCaseStorage\Views\test_view` as the location.



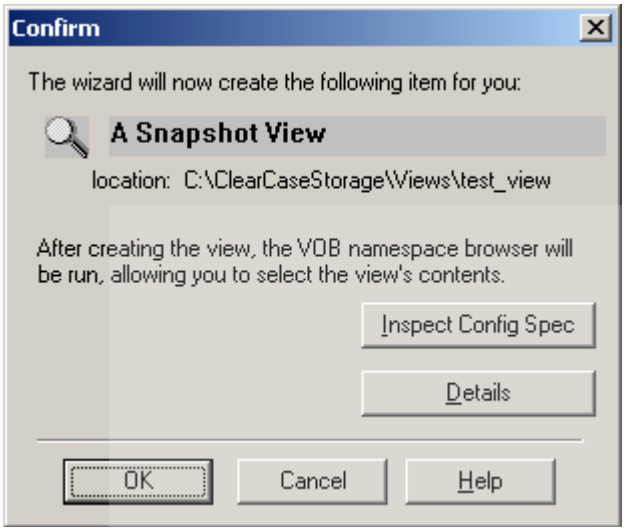
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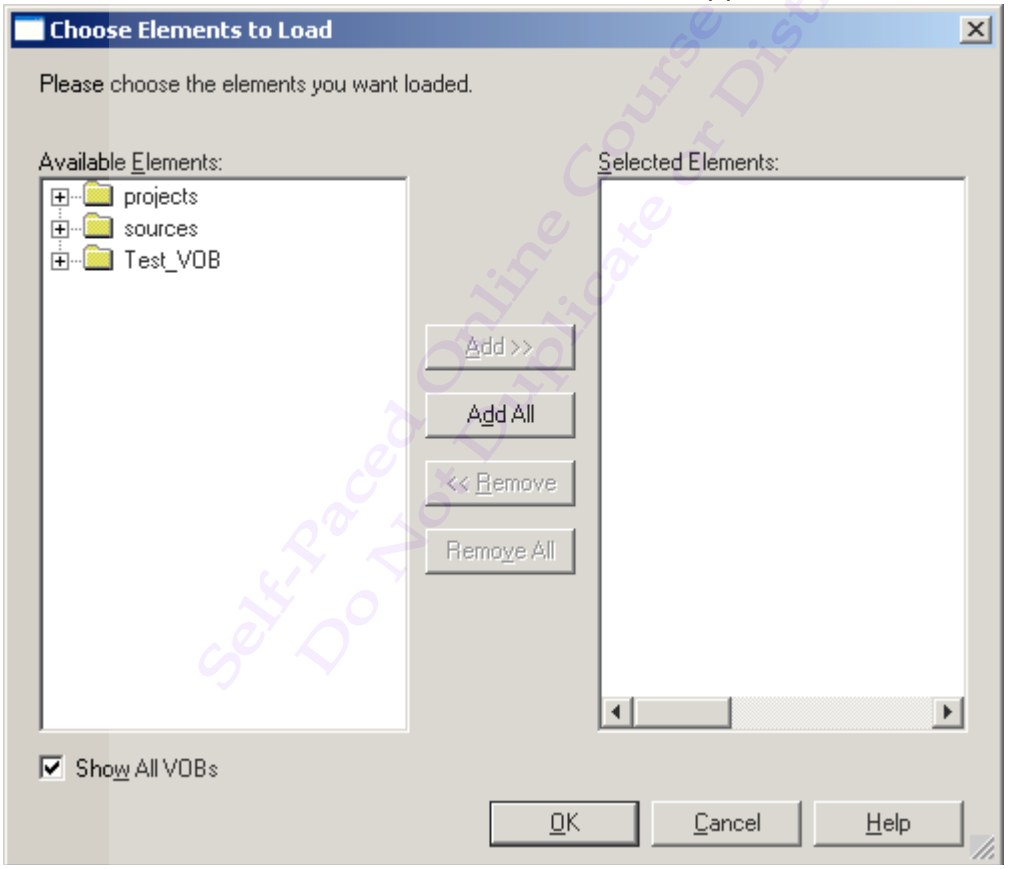
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__ 11. Click **Finish**.

__ 12. Click **OK** to confirm.


Confirm
The wizard will now create the following item for you:
A Snapshot View
location: C:\ClearCaseStorage\Views\test_view
After creating the view, the VOB namespace browser will be run, allowing you to select the view's contents.
Inspect Config Spec
Details
OK
Cancel
Help

The **Choose Elements To Load** window appears.

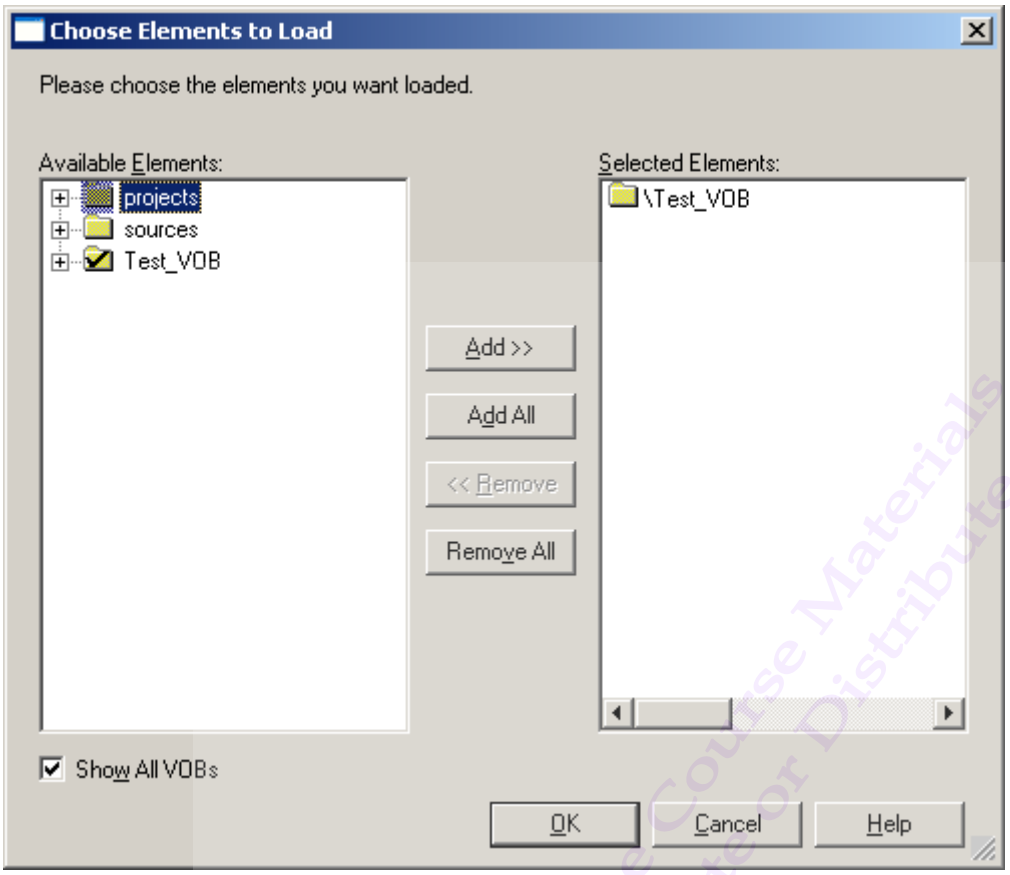


__ 13. Select **Test_VOB** from the **Available Elements**.

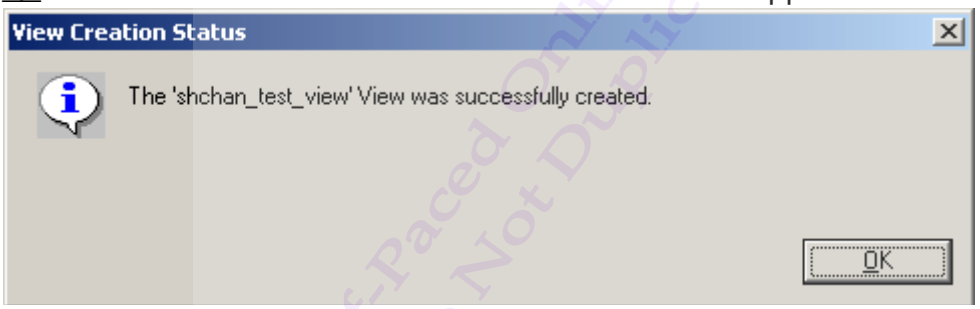
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__ 14. Click the **Add >>** button to choose **Test_VOB** to load.



__ 15. Click **OK**. The **View Creation Status** window appears.



__ 16. Click **OK**.

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Section 2: Project versioning using ClearCase

Part 5: Adding a Rational ClearCase repository

In this exercise, you will add a Rational ClearCase repository location to the **Repository** view in Modeler.

To add a connection to a Rational ClearCase VOB, complete the following steps:

__ 1. Launch Modeler by clicking **Start -> Programs -> IBM WebSphere -> Business Modeler.**

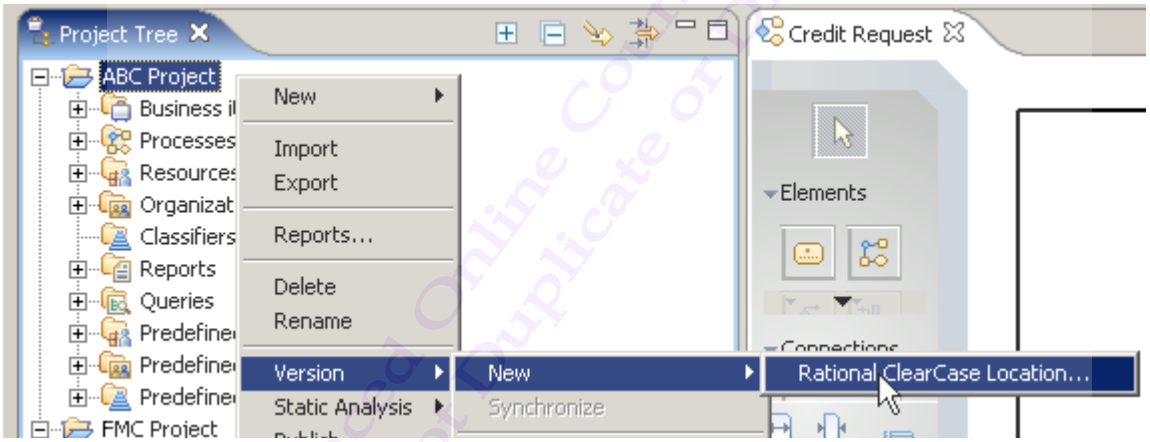
__ 2. Enter workspace `C:/ClassWorkspaces/ClearCase1`

__ 3. Click **OK**.

__ 4. If the Quickstart wizard is displayed, click **Cancel**.

__ 5. Make sure all of the processes in the Project Tree are closed, and no processes are open in the process editor.

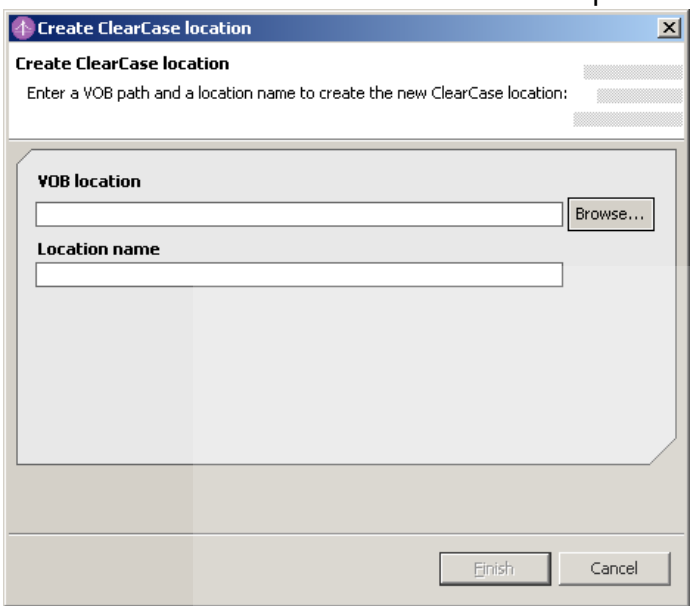
__ 6. Select **ABC Project** from the Project Tree, and right-click to select **Version -> New -> Rational ClearCase Location**.



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The **Create ClearCase location** wizard opens.

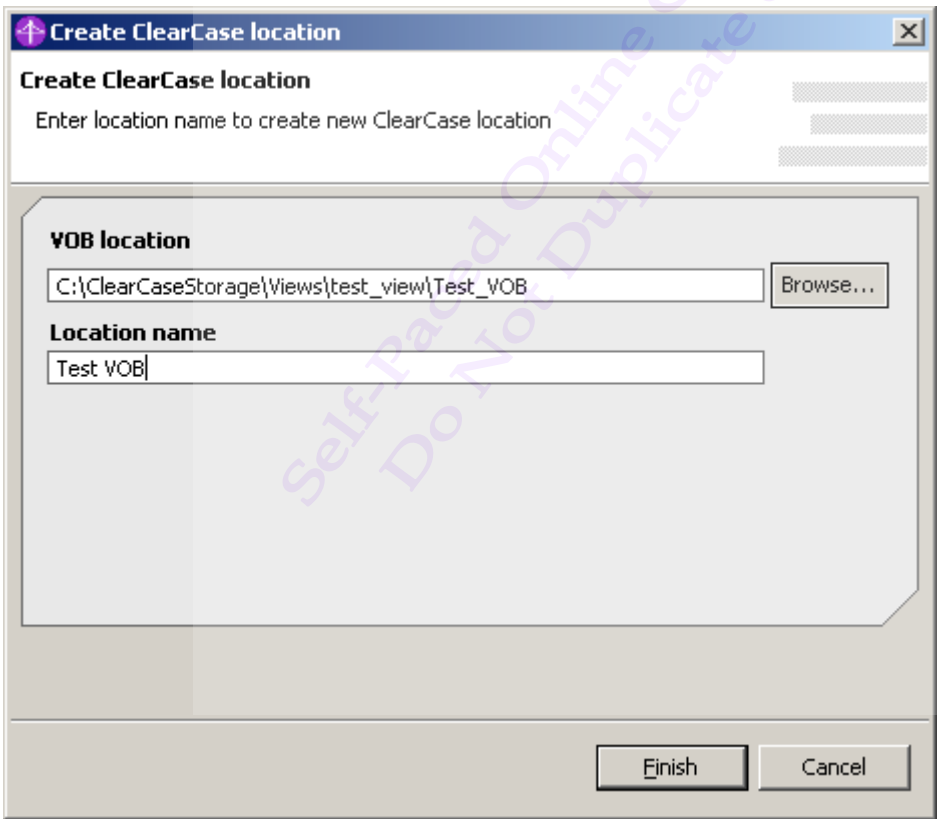


__ 7. Click the **Browse** button to locate the following information:

VOB location: `C:\ClearCaseStorage\Views\test_view\Test_VOB`

Note: If you type the path and location, it is case sensitive.

Location name: `Test VOB`



This is the name displayed by other team support views, such as the **Repository** view.

__ 8. Click **Finish**.

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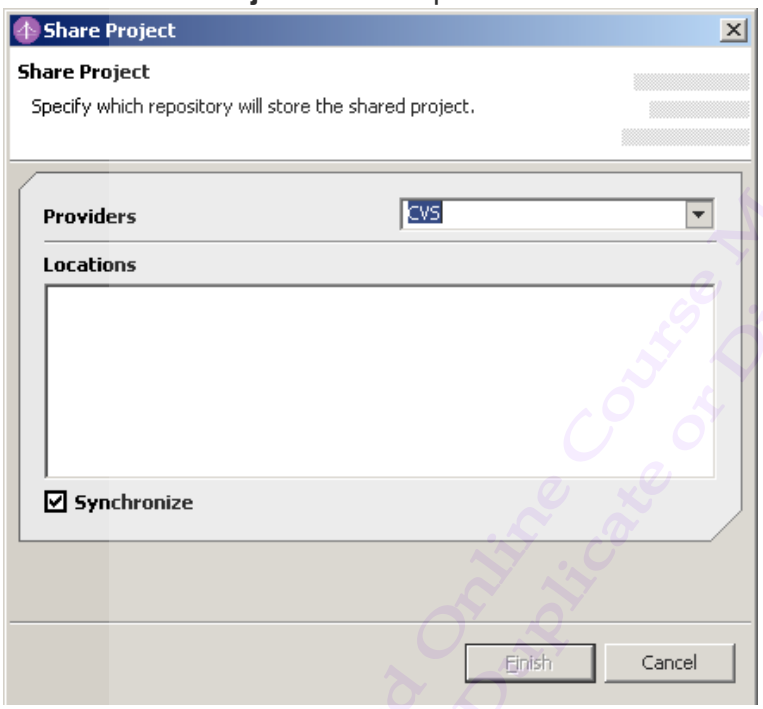
You can now share projects and get projects stored in the Rational ClearCase VOB repository.

Part 6: Sharing projects

You can share any business modeling project with other team members by adding it to a Rational ClearCase VOB (versioned object base) repository location.

To share a project, complete the following steps:

__ 1. In the Project Tree, right-click the **ABC project** and select **Version -> Share**. The **Share Project** wizard opens.

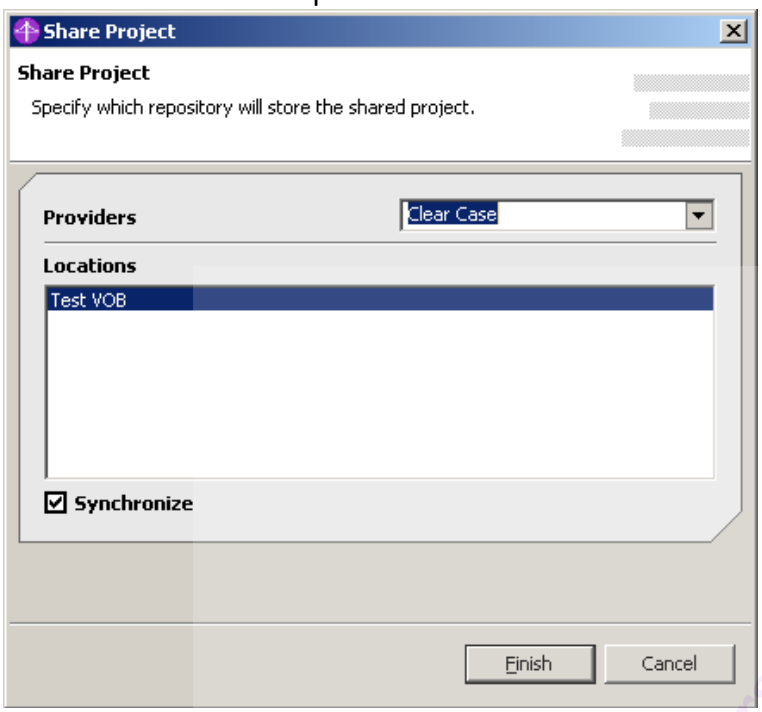


__ 2. In the **Providers** field, select **ClearCase** as the provider.

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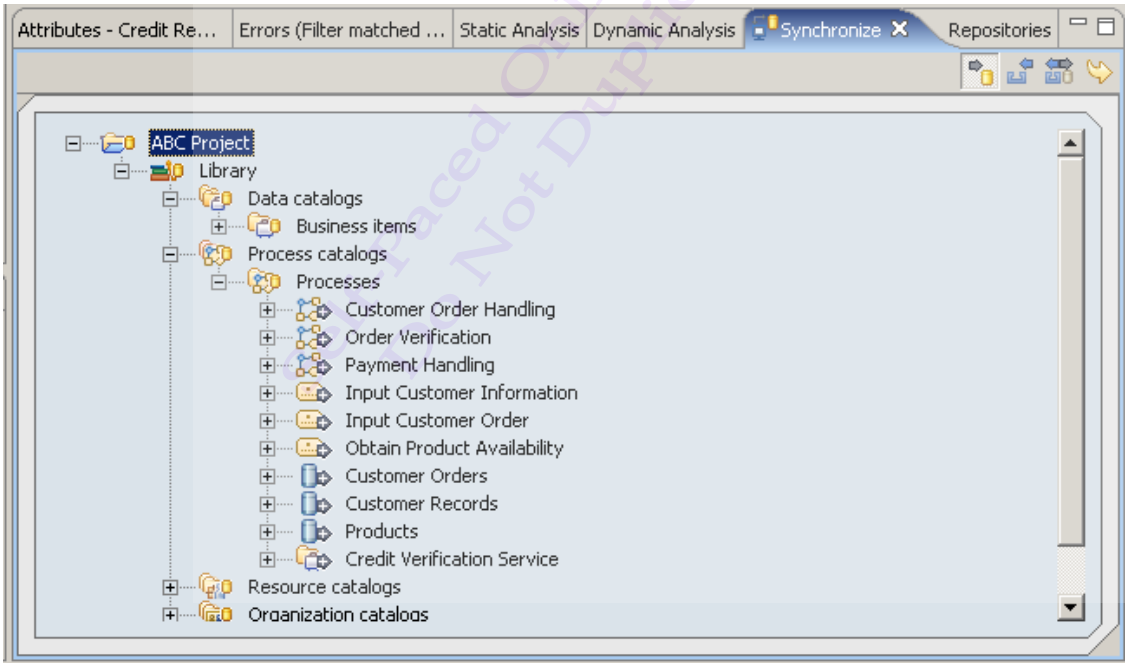
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The **Locations** field updates to show **Test VOB**.



__ 3. Click **Finish**.

The repository now has a folder for the project. The **Synchronize** view opens, and displays the project. This will also open a new view in the Business Modeling perspective; this view will list every component in your project that has been added or modified since it was last committed.



You do not have to perform this synchronization step; instead, you can directly commit the project to the ClearCase repository since it is a new project. When working with existing

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projects from a ClearCase repository, you should use the **Synchronize** command as a final check of what you are putting into the repository.

Note: Synchronization state applies to both CVS and ClearCase.

The **Synchronize** view shows the synchronization state of resources in your workspace compared to those in the repository. This state is shown by using icons, and can also be configured to show the state as text appended to the resource name. A description of the icons is shown in the table below.

	An incoming addition means that a resource has been added to the repository. **Updating** will transfer the resource to your workspace.
	An incoming change means that the file has changed in the repository. **Updating** will transfer the new file revision to your workspace.
	An incoming deletion means that a resource was deleted from the server. **Updating** will delete your local resource.
	An outgoing addition means that the file was added to your workspace and is not yet in the repository. **Adding** then **Committing** will transfer the new file to the repository.
	An outgoing change means that the file was change locally. **Committing** the file will transfer the changes to the repository and create a new revision of the file.
	An outgoing deletion is a resource that has been deleted locally. **Committing** these resources will cause the remote resource to be deleted. **Note**: in CVS directories are never really deleted from the repository. Instead, files are deleted and empty directories are pruned from your workspace.
	A conflicting additions means that the resource has been added locally and remotely.
	A conflicting change means that the file has been changed locally and remotely. A manual or automatic merge will be required by the user. Also, any entries in the view that contain children that are conflicts will also be decorated with the comflict icon. This is done to make conflicts easy to find.
	A conflicting deletion means that the resource was deleted locally and remotely.

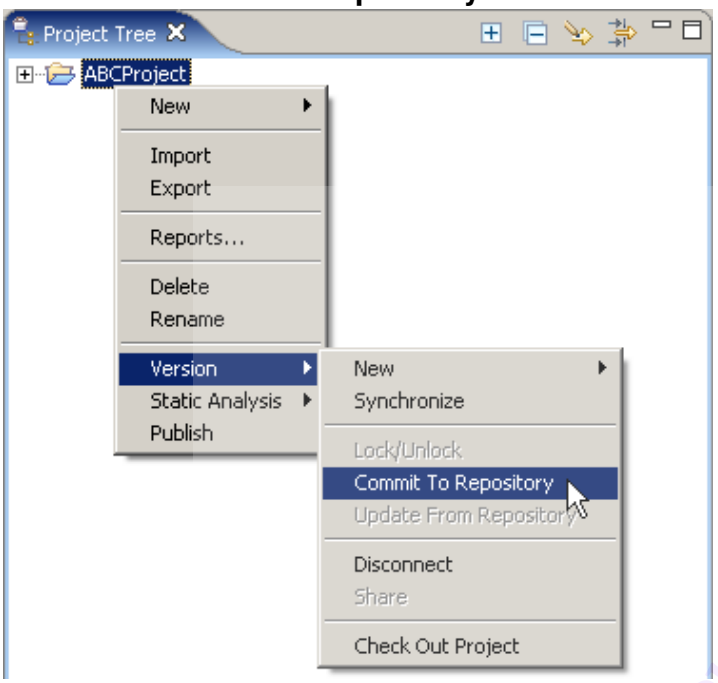
Part 7: Committing to repository

You have established the connection with the ClearCase repository by **Sharing**. To send a project into the repository initially, complete the following steps:

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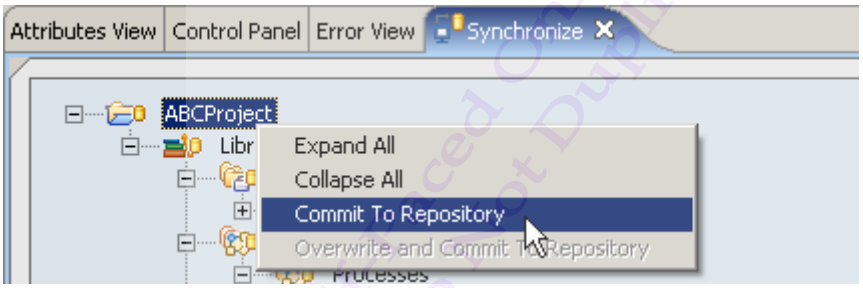
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__ 1. To send the components of your project to the ClearCase repository, you must commit them. From the **Project Tree** view, right-click the project and select **Version -> Commit To Repository**.



Note: As an alternative method, you can go to the **Synchronize** view in the bottom right pane, right-click `ABCProject,` and select **Commit To Repository**.

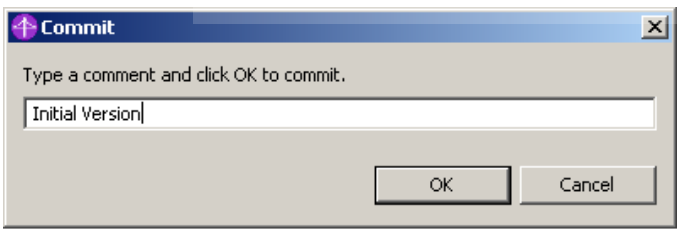
The **Commit To Repository** option is displayed when your local workspace contains the initial or most recent version of the element.



You can also commit individual resources instead of sending the entire project. Since this is the first time the project is being committed, you should send the entire project. Later, you can commit only the components you changed.

Note: Simulation profiles and snapshots cannot be committed to the repository.

__ 2. Executing the **Commit** command opens a dialog that prompts you for a comment. Enter `Initial Version` as a comment and click **OK**.



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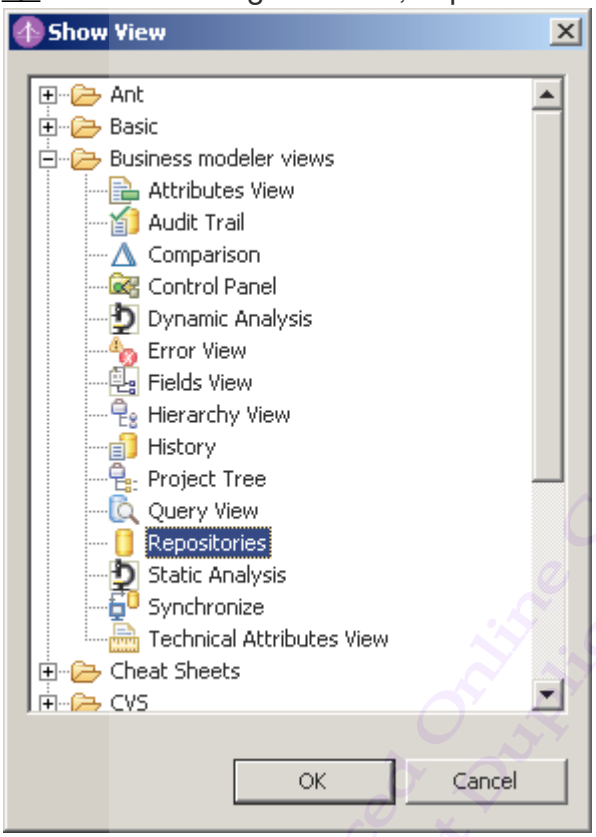
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The tool will connect to the repository and transfer all of the components of the project to the ClearCase repository. This process can take up to thirty minutes to complete. Assuming there are no conflicts or errors, you have successfully created your first version.

__ 3. To verify that the commit was successful, from the main menu bar, select **Window -> Show View -> Other**.

The **Show View** window appears.

__ 4. In the navigation tree, expand **Business modeler views** and select **Repositories**.



__ 5. Click **OK**.

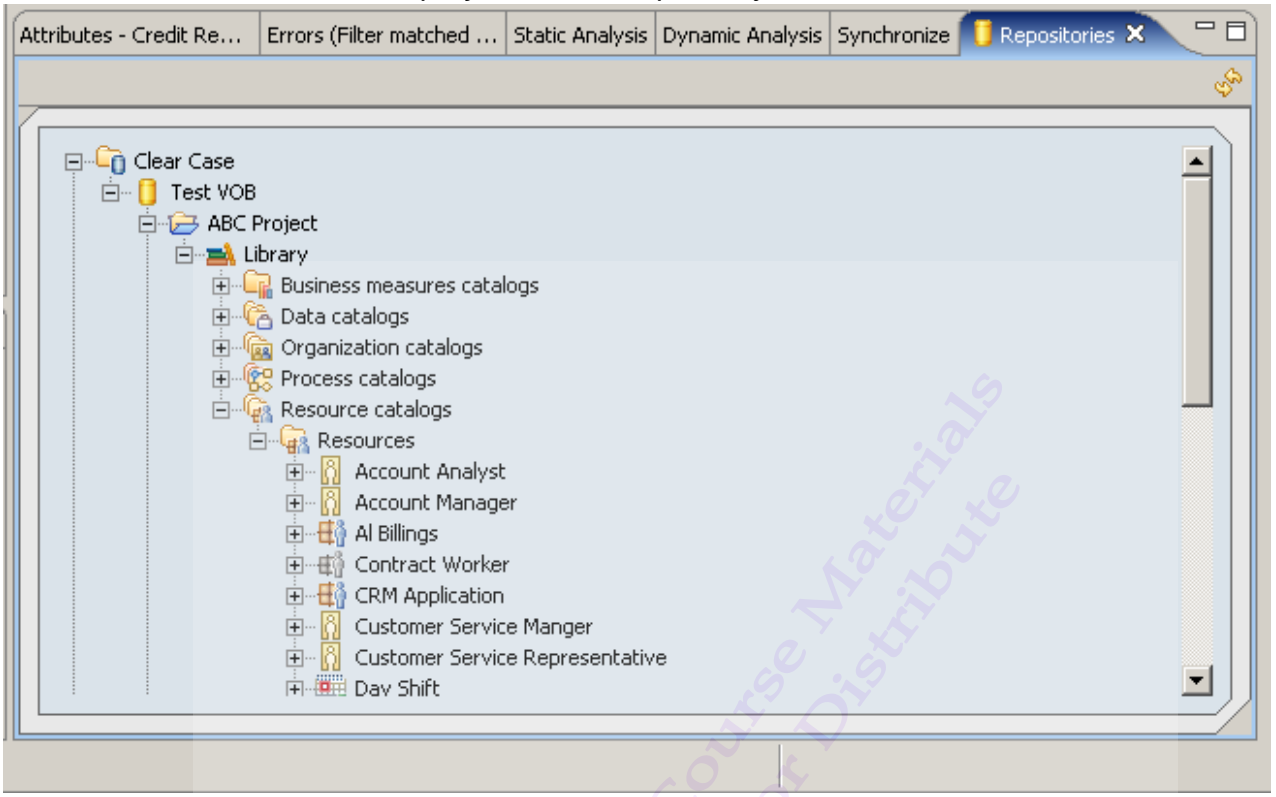
The **Repositories** pane is displayed.

__ 6. In the **Repositories** pane, expand the version control system node (ClearCase) and then expand the repository node.

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The tree shows the available projects in the repository.



Note: The tree in the **Repository** view may have a CVS node and a Rational ClearCase node if you have added one or more repositories in both systems. Similarly, the CVS node and the Rational ClearCase node will have more than one repository if you have more than one location (CVS) or VOB (Rational ClearCase).

Part 8: Making and managing changes in your project

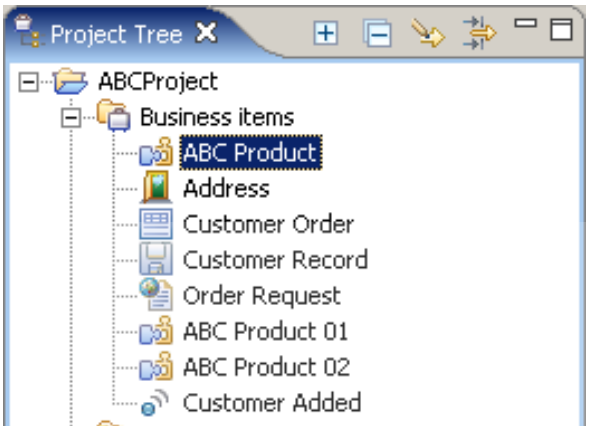
In this part of the lab, you will make modifications to your project, compare revisions, and examine object histories.

__ 1. Add a new attribute called `Product Description` to the ABC Product business item:

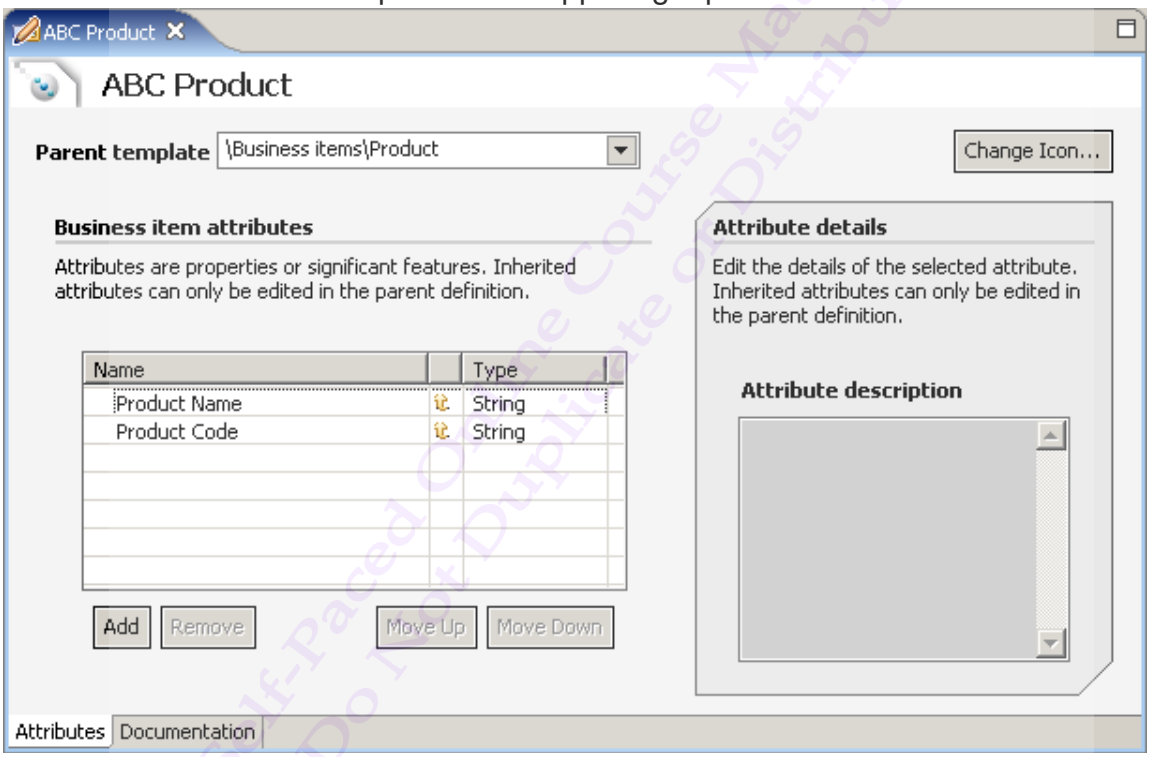
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__ a. From the Project Tree, expand to **ABCProject -> Business items -> ABC Product**, and then double-click **ABC Product**.



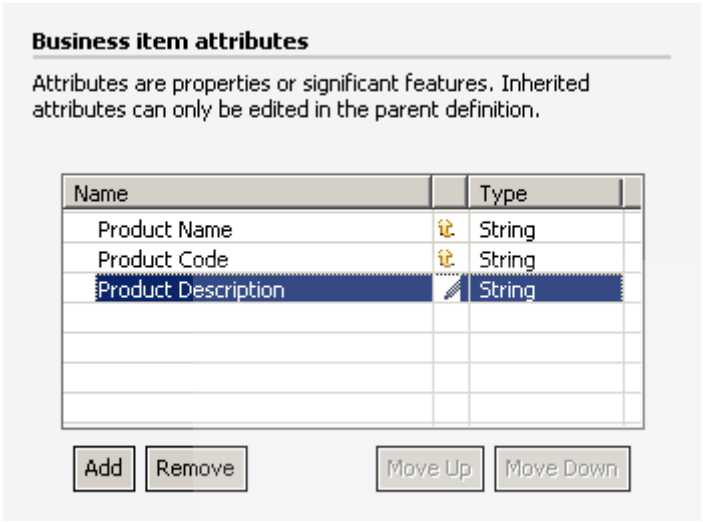
The business item editor opens in the upper right pane.



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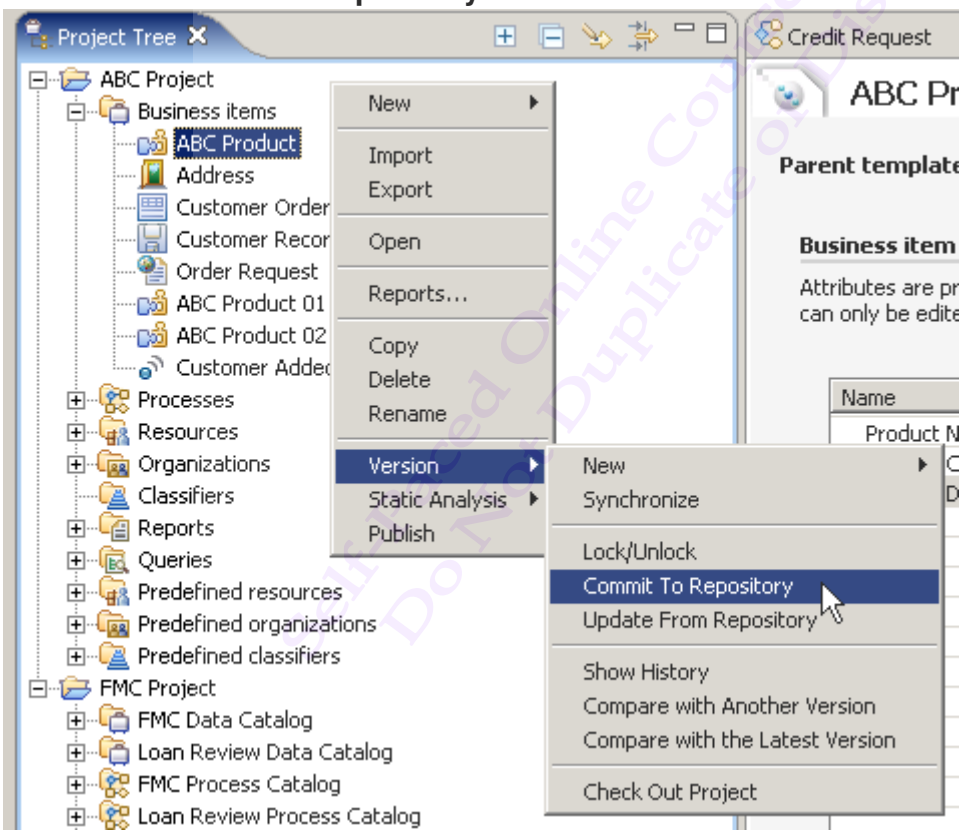
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__ b. Click **Add** to add a new business item attribute called `Product Description`



__ c. Save changes (**Ctrl+S**).

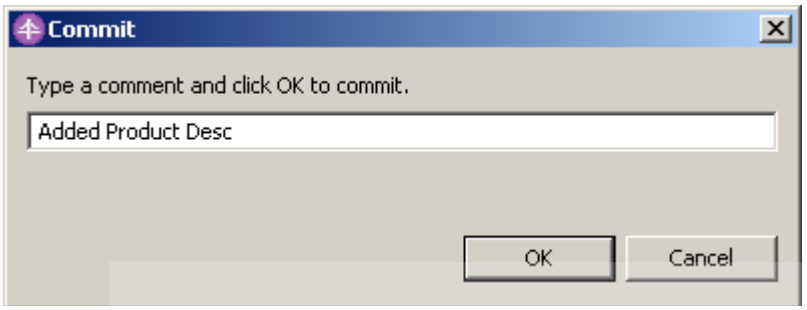
__ 2. In the Project Tree, right-click **Business items -> ABC Product** and select **Version -> Commit To Repository**.



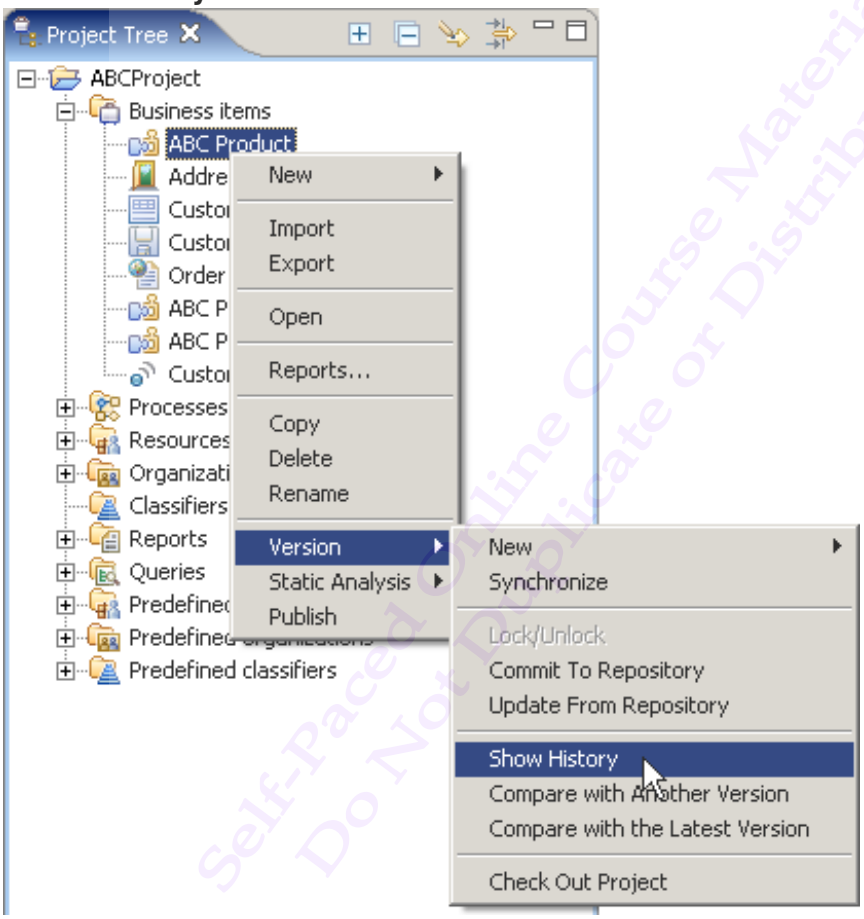
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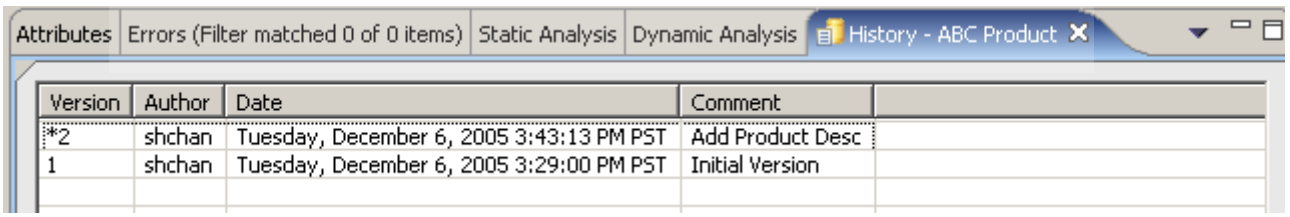
__ 3. Enter `Added Product Desc` as a comment, and click **OK**.



__ 4. Once you have committed to the repository, to view the history of the component, go to the Project Tree, right-click **ABC Product**, and then select **Version -> Show History**.



The **History view** opens and shows you the versions of the component and the comments associated with each version.



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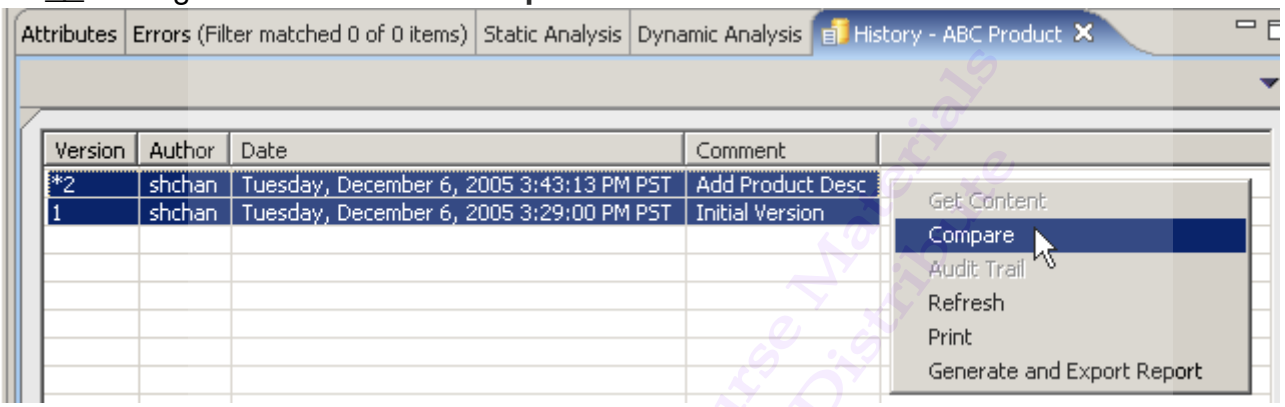
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If you want to return to a previous version of a component, ensure that it is not open in any editor, then right-click the older version in the **History** view and select **Get Content**. The tool will connect to the repository and retrieve the component. Open the component in an editor to verify that the previous version was successfully retrieved.

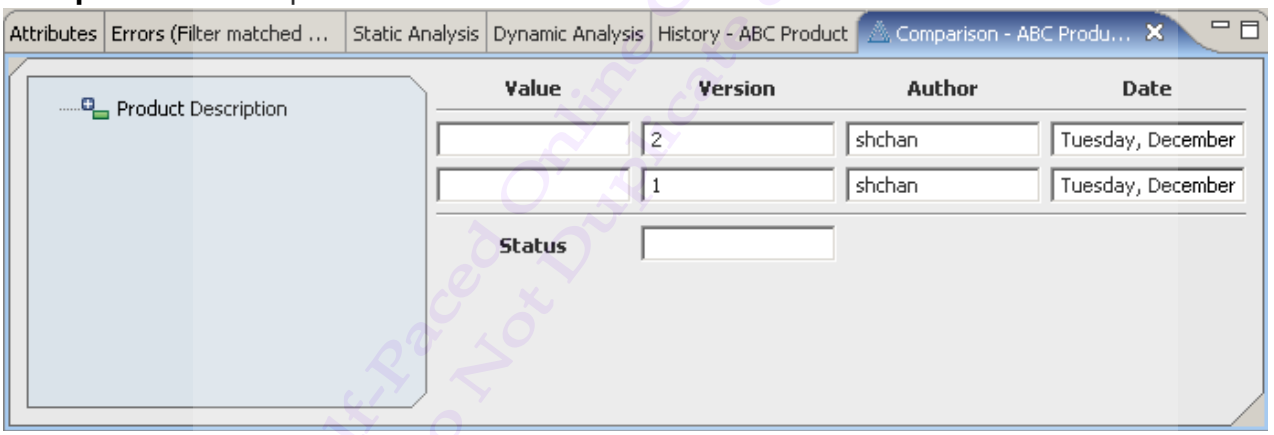
__ 5. To examine the differences between two versions:

__ a. Select both rows in the **History view** (hold the **Shift** key while clicking each row).

__ b. Right-click and select **Compare**.



The tool connects to the repository and retrieves information regarding both versions. The **Comparison** view opens.



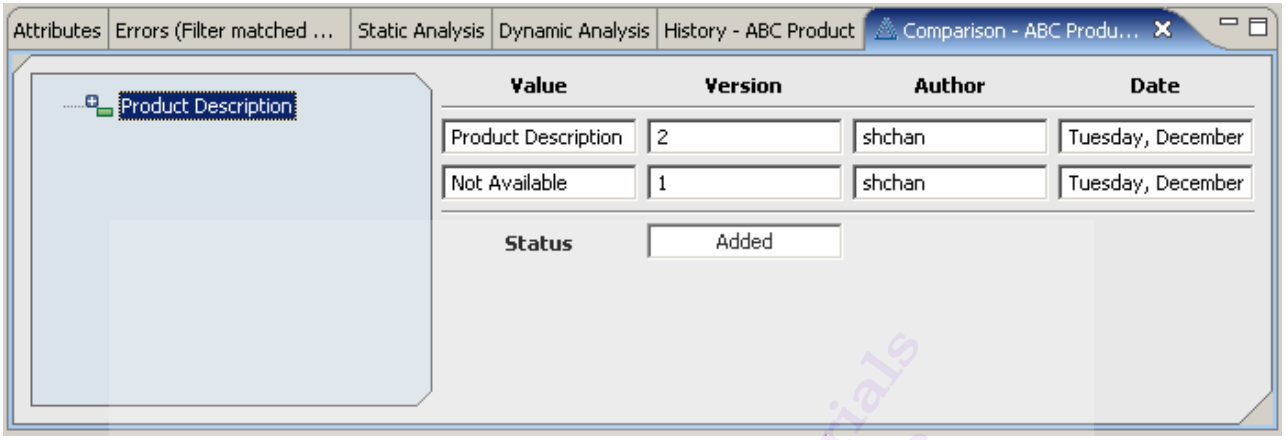
By default, the **Comparison** view displays any attributes that have changed, when they changed, and who changed them.

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__ c. Click **Product Description** in the **Comparison** view. The corresponding values, versions, author, and date are displayed.



Part 9: Create a new workspace and add new repository location

In this part, you will retrieve a project from the ClearCase repository that was not previously in your workspace. This is the sort of activity you would perform if you had a new team member on your project, installed the Modeler on a new machine, or otherwise no longer had access to the local project.

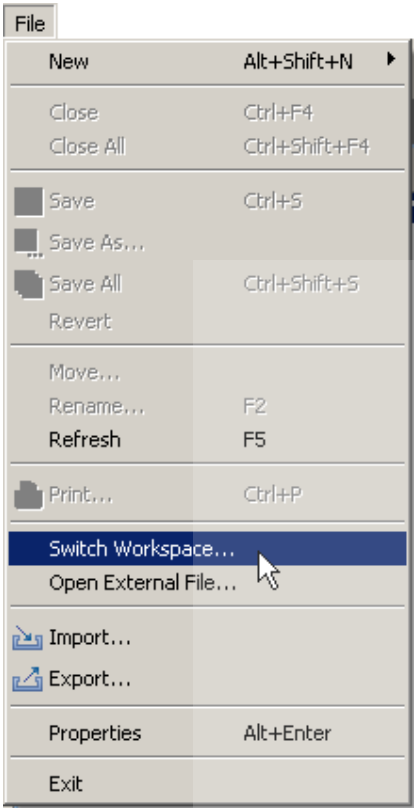
You can check out a project from the ClearCase server, which enables you to work with and modify a local copy of the project. Before you can check out a project, you must add the ClearCase repository location. Note that you can only check out a project if your local machine does not already have a project with the same name; if it does, you must delete or rename the existing project before you can check out the ClearCase project.

In this part, you will be emulating a second user. The following steps walk you through the creation of a new workspace and adding the ClearCase repository location.

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__ 1. From the **Menu** toolbar, select **File -> Switch Workspace**.



__ 2. In the **Workspace Launcher** window, enter `C:\ClassWorkspaces\ClearCase2`

__ 3. Click **OK**.

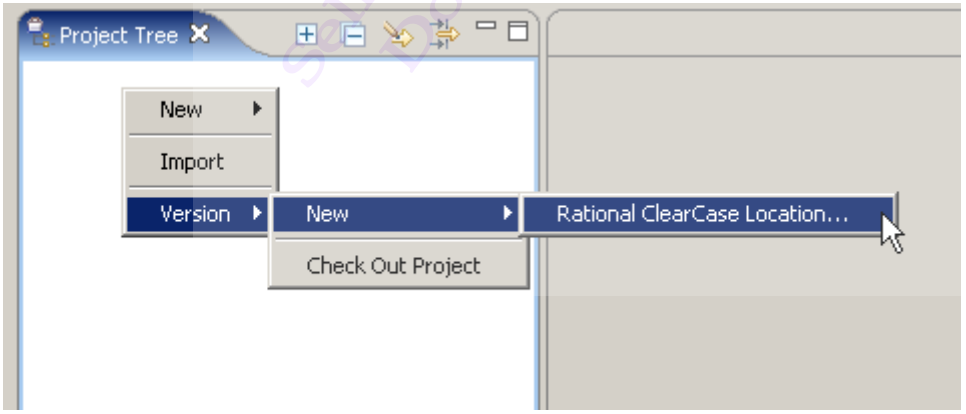
Modeler closes and restarts.

__ 4. In the **Quickstart wizard** dialog box, click **Cancel**.

__ 5. Close the **Welcome** page.

__ 6. Switch to **4-pane layout**.

__ 7. Right-click the Project Tree, and select **Version -> New -> Rational ClearCase Location**.



The **Create ClearCase location** wizard opens.

__ 8. Browse to the following information:

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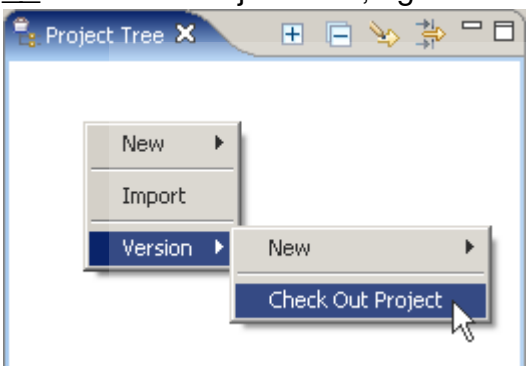
VOB Location: `C:\ClearCaseStorage\Views\test_view\Test_VOB`

Location name: `Test VOB`

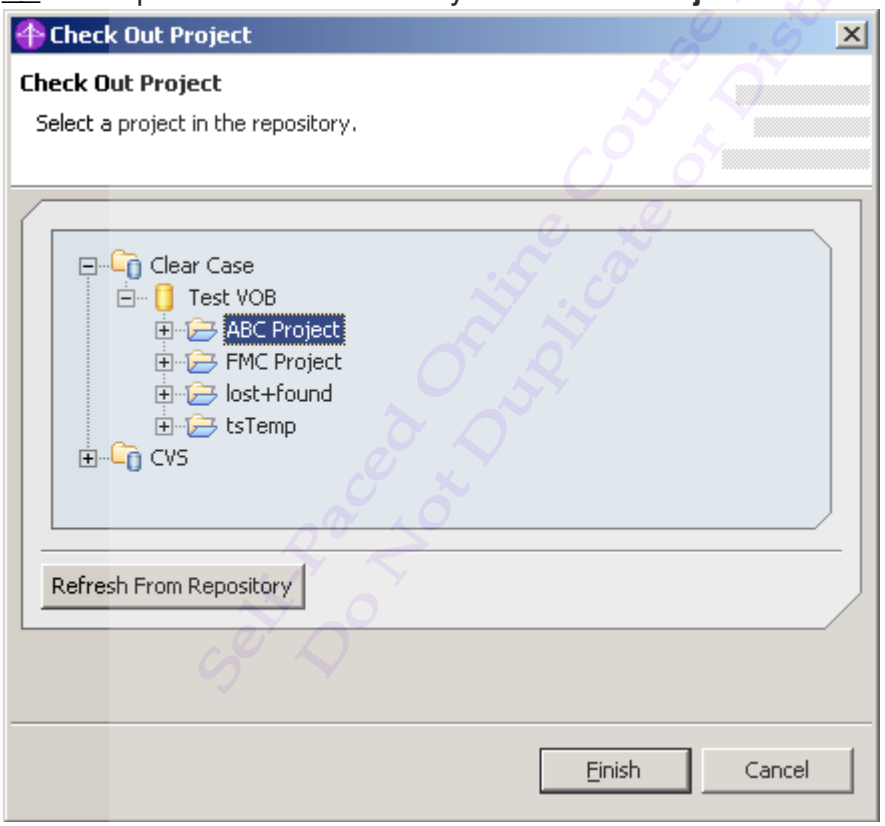
__ 9. Click **Finish**.

You can now check out projects from the Rational ClearCase repository.

__ 10. In the Project Tree, right-click and select **Version -> Check Out Project**.



__ 11. Expand **ClearCase** until you find **ABCProject**.



__ 12. Select **ABCProject** and click **Finish**.

The ABCProject is now available in the Project Tree.



__ 13. Add another new attribute called `Price` to the ABC Product business item:

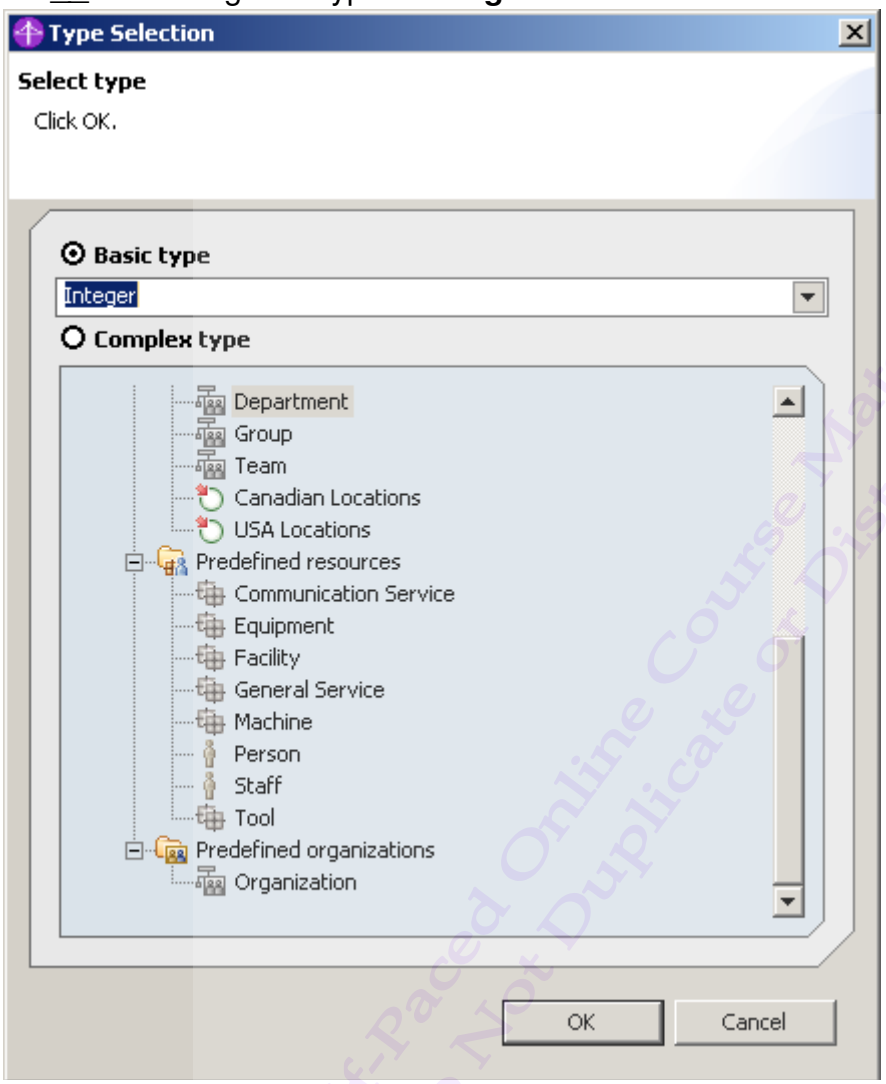
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__ a. From the Project Tree, expand to **ABCProject -> Business item -> ABC Product**, and then double-click **ABC Product**.

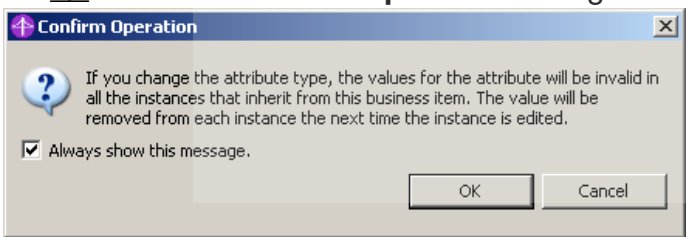
__ b. Click **Add** to add a new business item attribute called **Price**.

__ c. Change the type to **Integer**.



__ d. Click **OK**.

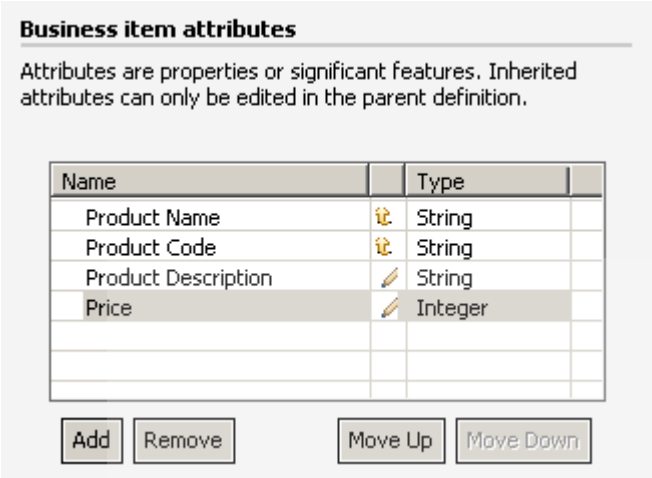
__ e. If the **Confirm Operation** dialog box appears, click **OK**.


Confirm Operation
If you change the attribute type, the values for the attribute will be invalid in all the instances that inherit from this business item. The value will be removed from each instance the next time the instance is edited.
Always show this message.
OK
Cancel

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There should be four attributes displayed:

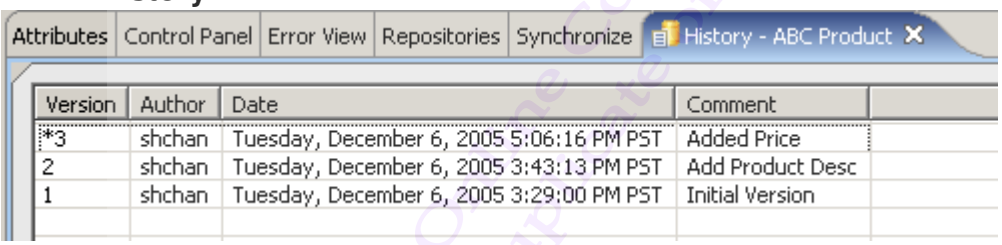


__ 14. Save changes (**Ctrl+S**).

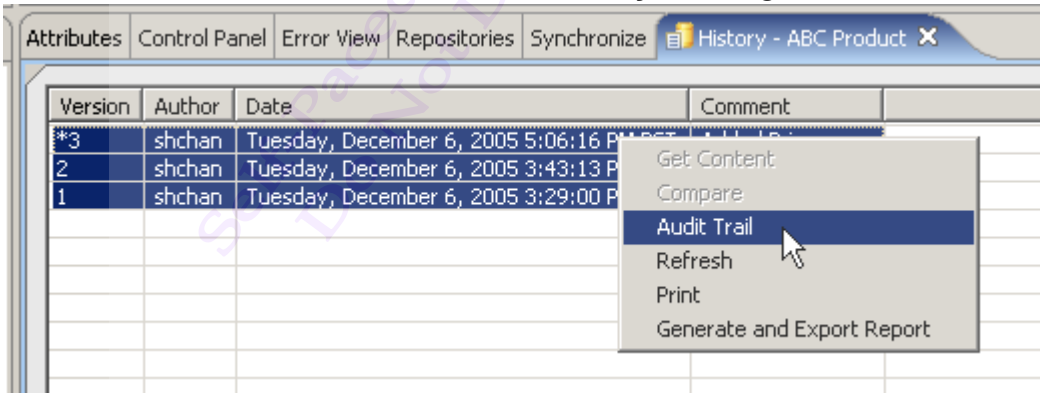
__ 15. In the Project Tree, right-click **Business items** and select **Version -> Commit To Repository**.

__ 16. Enter `Added Price` as a comment and click **OK**.

__ 17. Right-click `ABC Product` from the Project Tree and select **Version -> Show History**.



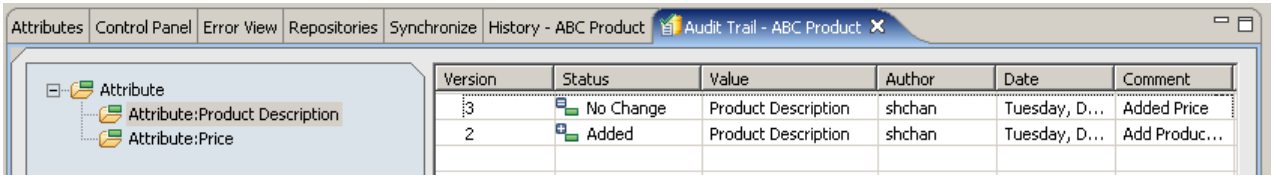
__ 18. Select all three revisions in the **History** view, right-click, and select **Audit Trail**.



The tool connects to the repository and retrieves information regarding all versions.

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The **Audit Trail** view opens.



As you select attributes in the left pane of the view, you will see a listing of information about when changes were made. In the example above, you will see that the attribute “Product Description” was added in version 1.2 and there were no changes to the attribute in version 1.3. If you select ***Attribute: Price***, you will see that the price was added in version 1.3.

For some components, such as tasks in a process, you can also view more details. Perform an audit of a process that has had three or more versions, and then select one of the changed attributes. You should see the **Show Details** command. If you select the **Show Details** command, the **Comparison** view will open and allow you to see the specific values that have changed.

Part 10: Updating a project from the repository

In this part, you will switch to the workspace of the first user and synchronize the ABC Project.

__ 1. From the menu toolbar, select **File -> Switch Workspace**.

__ 2. In the **Workspace Launcher** window, enter `C:\ClassWorkspaces\ClearCase1`

__ 3. Click **OK**.

Modeler closes and restarts.

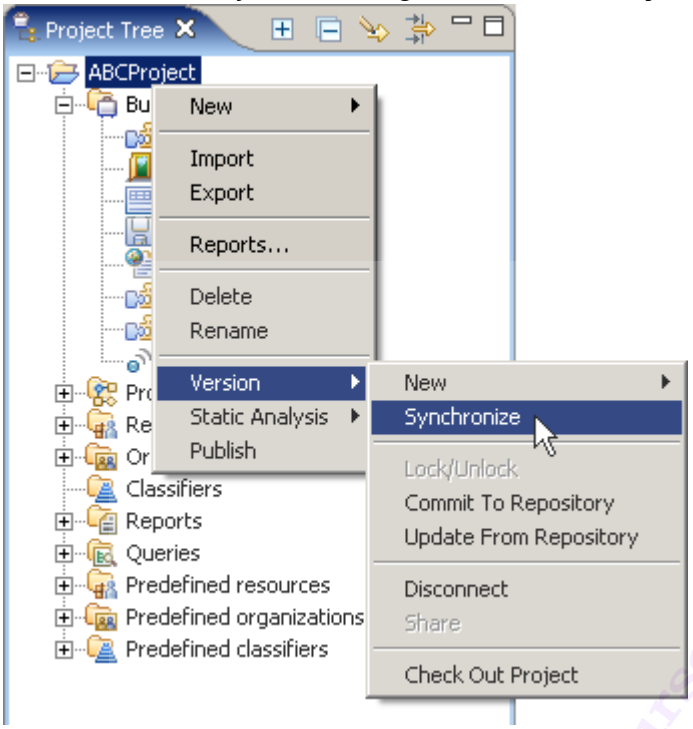
__ 4. If the **Quickstart wizard** dialog box appears, click **Cancel**.

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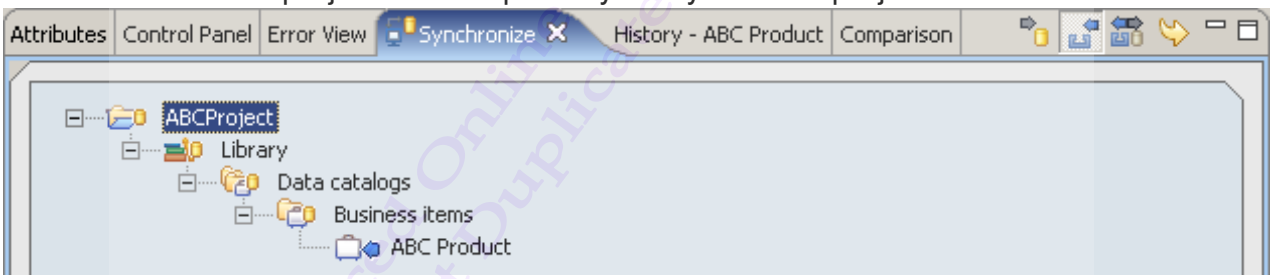
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__ 5. In the Project Tree, right-click **ABCProject** and select **Version -> Synchronize**.

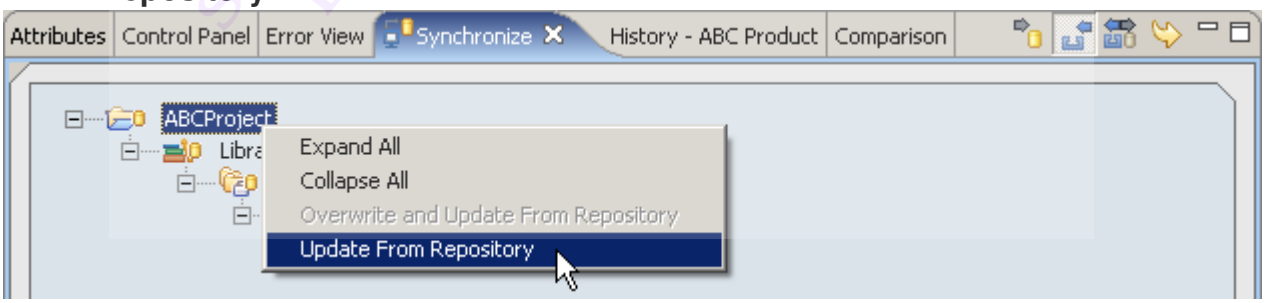


__ 6. In the **Synchronize** pane, expand the nodes of **ABCProject** to find the differences between the project in the repository and your local project.



Since the business item **ABC Product** was the only element modified, the **Synchronize** view lists only this item.

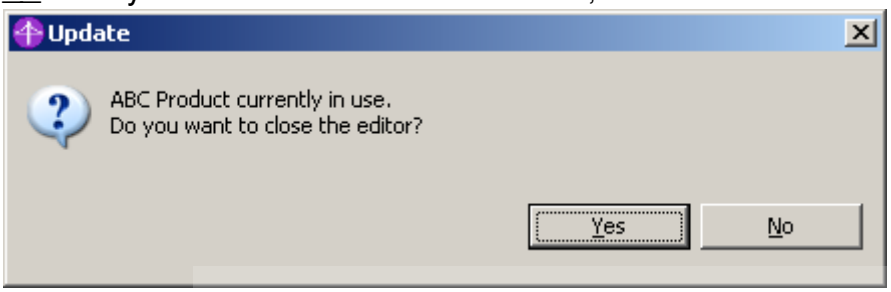
__ 7. In the **Synchronize** view, right-click **ABCProject** and select **Update From Repository**.



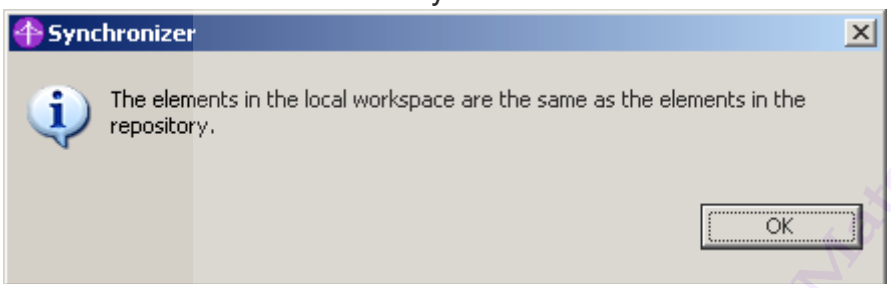
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__ 8. If you are asked to close the editor, click **Yes**.



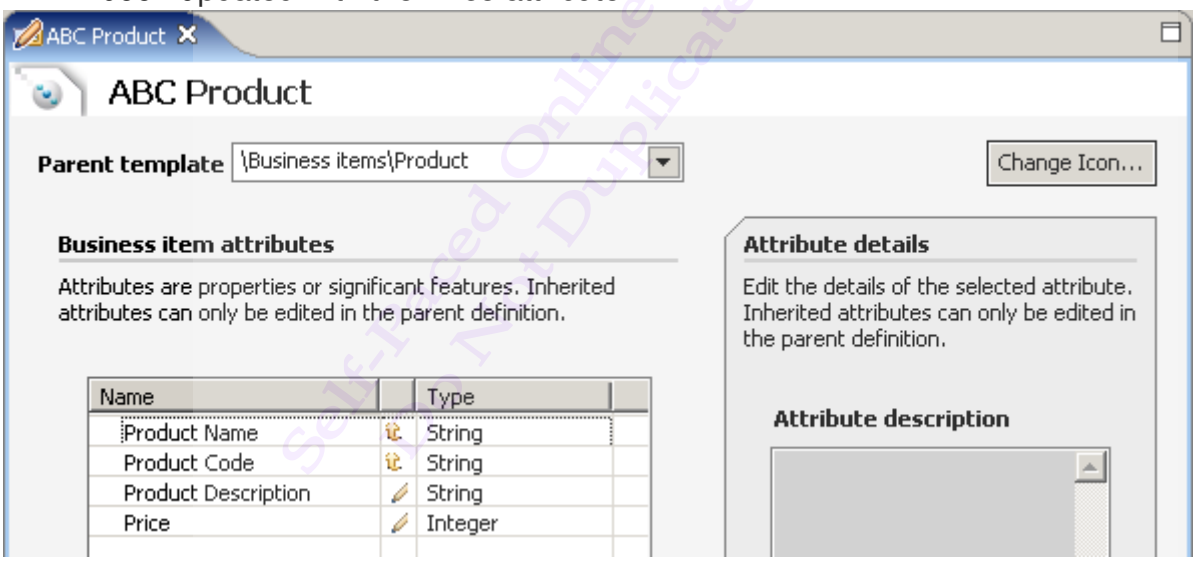
It will take a few moments to synchronize.



__ 9. Click **OK**.

Once the local project has been updated with the changes, the **Synchronize** view no longer displays any elements.

__ 10. In the Project Tree, double-click the business item **ABC Product** to verify that it has been updated with the Price attribute.



Now you may explore the project in your local machine, show the history of components, and so on. Note that all of the functions you explored earlier in this lab are available. Once you have retrieved the project, you can also retrieve earlier versions of the components by using the `Get Content` command from the History view.

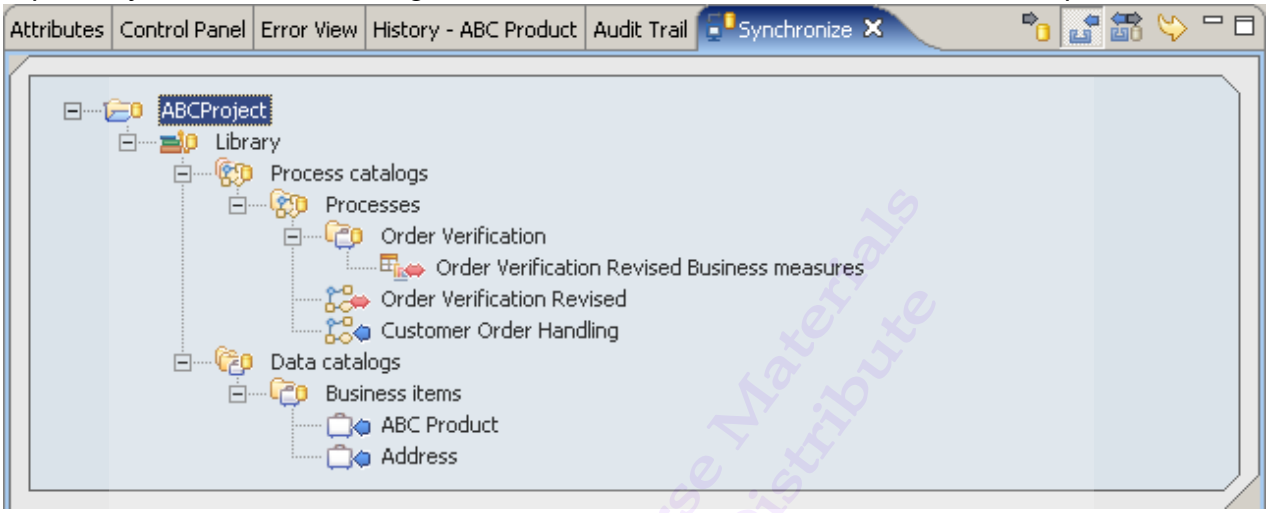
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Part 11: Working in a multiple developer environment

When you have multiple developers working on a project, additional functions become relevant. In the screen capture below, you can see what happens if a different person makes changes to the repository. The local workspace is out of sync with the ClearCase repository. The file was changed on the server and exists in the local workspace.



In dealing with situations like this, you have options:

- Option 1: Accept that the server version is correct
  Right-click the project and select **Version -> Update**. This will retrieve the most current version of all components of the project.
- Option 2: Treat each case individually
  Right-click the project and select **Version -> Synchronize**. Expand the project in the **Synchronize** view, and in each case of a conflict, resolve it either by updating or overwriting and updating it.

When you are done with this lab, click **File -> Exit** to close the Modeler.

END OF EXERCISE

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